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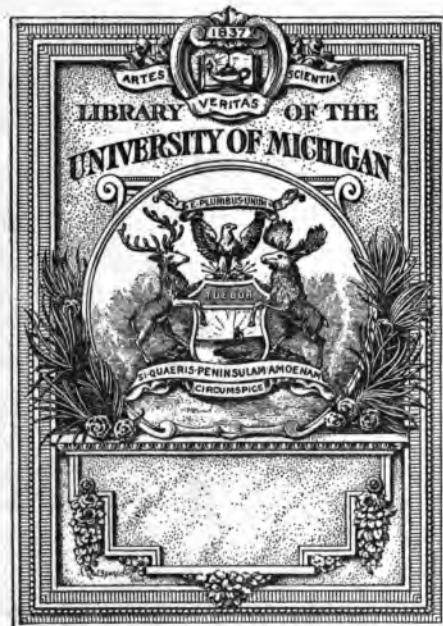
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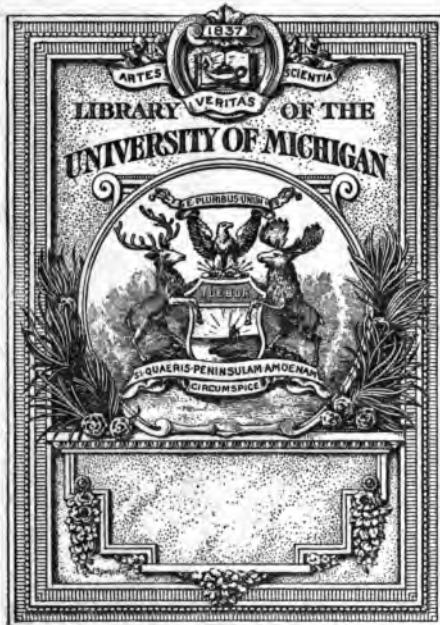
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## INTRODUCTION

TO

# THE PEDAGOGY OF HERBART

(By CHARLES KUFER)

*AUTHORIZED TRANSLATION FROM THE FIFTH GERMAN  
EDITION, UNDER THE AUSPICES OF THE  
HERBART CLUB*

BY J. C. ZINSER, M.S.

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BOSTON, U.S.A.

D. C. HEATH & CO., PUBLISHERS

1894

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## EDITOR'S PREFACE.

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AMERICAN teachers need an introduction to the study of Herbart, first of all because of the organic nature of his systematized thought, but primarily because of the inherent importance of the ideas themselves. It is difficult to get the full significance of any portion of an organized system without having an understanding of the point of view from which the author sees the whole. This introduction, therefore, which in simple, concrete manner gives a ~~bird's~~ <sup>bird's</sup> eye view of the ends and means of education as seen by Herbart, will serve as a reliable guide not only to the ~~work~~ <sup>work</sup> of Herbart himself, but also to the writings of his ~~followers~~ <sup>followers</sup>.

With Herbart and his followers, two important ~~points~~ <sup>points</sup> stand out with especial prominence: (1) the development of sound moral character through the activities of the ~~child~~ <sup>child</sup> as the end of education; and (2) the apperception, or assimilative power of the child, as the only safe ~~means~~ <sup>means</sup> through which this end is to be reached.

It should not for a moment be imagined that the ~~class~~ <sup>class</sup> of Herbart have any scheme for superimposing upon ~~upon~~ <sup>upon</sup> a ~~lect~~ <sup>lect</sup> education a moral training, such as might be proposed to be effected by a conformity to ~~ritual~~ <sup>ritual</sup>, or church device, or by so-called ethical instruction. ~~No~~ <sup>No</sup> could be further from their thought. ~~On~~ <sup>On</sup> the ~~com~~ <sup>com</sup> their conception is that moral training should come ~~in~~ <sup>in</sup> instruction in the studies of the ~~curriculum~~ <sup>curriculum</sup>, taken <sup>v</sup>

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## EDITOR'S PREFACE.

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AMERICAN teachers need an introduction to the study of Herbart, first of all because of the organic nature of his systematized thought, but primarily because of the inherent importance of the ideas themselves. It is difficult to get the full significance of any portion of an organized system without having an understanding of the point of view from which the author sees the whole. This introduction, therefore, which in simple, concrete manner gives a bird's-eye view of the ends and means of education as seen by Herbart, will serve as a reliable guide not only to the works of Herbart himself, but also to the writings of his school.

With Herbart and his followers, two important things stand out with especial prominence: (1) the development of sound moral character through the activities of the school as the end of education; and (2) the apperception, or mental assimilative power of the child, as the only safe guide to the means through which this end is to be reached.

It should not for a moment be imagined that the disciples of Herbart have any scheme for superimposing upon intellectual education a moral training, such as might be supposed to be effected by a conformity to ritual, or other church device, or by so-called ethical instruction. Nothing could be further from their thought. On the contrary, their conception is that moral training should come through instruction in the studies of the curriculum, taken in con-

junction with the regular school discipline. In other words, the common branches, aided by the ordinary discipline of the school, are to be made the means of revealing to the child the moral order of the world, both with respect to his responsibility as an individual and as a member of a complex social organization. Through this study and discipline he is to discover his moral relations both to individuals and to the social, family, religious, civic, and business groups, with which every child, under the conditions of modern civilization, must sooner or later enter into active co-operation. Not only is there to be an intellectual perception of moral relations, but moral ideas are gradually to be transformed into moral ideals. This process takes place through the development of moral disposition, which is occasioned and guided by judicious appeals to the feelings, and by the cultivation of inherent interest in the things that tend to produce the best and most useful members of society. Right disposition is to crystallize into moral habit through holding the child to right conduct by means of rational, love-tempered authority. These are the high moral purposes that the followers of Herbart seek to realize. To this end they propose no elaborate ethical system, in whose intricacies teacher and pupil alike are in danger of being lost, but they appeal rather to the most universal facts of every-day experience as a basis for the few but comprehensive ethical principles on which they base their efforts at moral education. To cultivate moral insight and disposition, they depend upon the child's own spontaneous judgment of right and wrong as, one by one, the various types of moral situation are brought to his attention by the ever broadening work of the school.

The practical means, founded upon psychology, through which they seek to reach these ends, are of the most vital importance to teachers. They comprise briefly: (1) the

selection of the subject-matter of education, or the various studies; (2) their correlation, or articulation, including, of course, the selection of the topics to be taught and the sequence of their presentation; (3) the determination of the most rational methods of teaching the matter thus selected and articulated; and (4) the consideration of the discipline of the school as a factor in moral training. These are the important topics in education, and to them modern teachers are giving increased attention. Any system of thought that makes our efforts to develop character more effective, and which at the same time furnishes us with more useful methods of selecting, arranging, co-ordinating, and presenting knowledge, is worthy of our best study.

Though the author of the present volume has not been able to make all hard things easy, he has certainly rendered it possible for the thoughtful teacher to make a profitable beginning. His introduction, whose translation is herewith presented, has been the bridge over which thousands of teachers have passed to independent study and research. It is the hope of both translator and editor that it will prove as useful on this side of the Atlantic as on the other.

CHARLES DE GARMO.

SWARTHMORE COLLEGE, Swarthmore, Pa.,  
October, 1894.



## INTRODUCTION.

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AMONG all of nature's beings man alone is capable of education. Animals cannot in any true sense be educated; they can only be trained. Education is an influence upon man. When a person is spoken of as well-educated, we do not think of bodily qualities. The educating influence has reference to the soul, and concerns itself with the body only in so far as the care of the latter is immediately serviceable to the former. Education is an influence upon the *soul* of the pupil. It demands much time, for by it many and various things are to be done. He who would enter upon a great and complex undertaking, first makes a plan that he means to follow. So, too, is it in education—a great whole of ceaseless labor, which from one end to the other is to be carefully attended to, and in which it is not sufficient merely to have avoided some blunders. It consists in an intentional systematic influence upon the soul of the pupil. In order to be able to influence the soul successfully, one must be acquainted with it. The educator, in order to get his bearings, requires the aid of psychology; it is a science auxiliary to pedagogy. Herbart says of it: Psychology is the first auxiliary science of use to the educator; we must possess it before we can say of a single recitation what has been rightly done, what has gone amiss.

Whoever undertakes a work, has a definite aim that he strives to reach. The educator also must set before himself

If I lay this piece of sugar on my tongue, the gustatory nerves are excited; they conduct the impression to the brain, and there also set in vibration certain brain fibers, but not the same ones that were excited by the optic nerve.

When we think of a piece of sugar, we remember that it is white and sweet and heavy. From this we see, that the impressions have not merely set in motion different brain fibers, but that in addition to this a union has taken place. This is conceivable only on the supposition of a simple essence, different from the body, which we call SOUL. To the physical and physiological processes is added also the psychological. Materialism, which denies the existence of a distinct soul-being, is unable to explain the above-mentioned union of impressions.

Though we must distinguish, on the one hand, between body and soul, it must, on the other hand, not be overlooked, that between them a very intimate interaction takes place. Not to detain with details, we will only mention that a diseased condition of the body reacts unfavorably upon the soul, and *vice versa*. Just so does bodily vigor act revivingly upon the soul and mental freshness acts revivingly and stimulatingly upon the body.

Let us now turn our attention exclusively to the consideration of the psychic life.

When we compare an adult with a three-year-old child, we recognize that the former has a much richer soul-content than the latter, and the three-year-old child has a richer soul-content than a one-year-old. We may then conjecture that the new-born child has no (appreciable) soul-content at all.<sup>1</sup> According to the opinion of Herbart, which in part

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sensations of light, form and color. — Dr. Brubaker, "Physiology," p. 158. — TRANSLATOR.

<sup>1</sup> Everything which really is exists either in connection with some other thing, or it exists in itself. Color, weight, odor, have existence

was based on immediate experience, but in part upon the very difficult science of metaphysics, the soul has originally no content whatever. The production of a content begins as soon as the soul enters into union with the body.

As the soul *per se* (in its essential quality)<sup>1</sup> has no content, there can of course be no mention of faculties of the soul *per se*. All human souls are in their quality alike. Only it must be kept constantly in mind, that there is as yet no thought of any connection of soul and body when Herbart and his school speak of an absence of faculties in the soul. The teacher is concerned only with a union of body and soul, and there the special faculties and capacities are of course present.

We speak first of an *inherent capacity*. This has its basis in the constitution of the body. Just as there are no two human bodies that are in all respects exactly alike, so it is certain that the mental life of each person is *sui generis*,

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only in some other, self-existing object, to the constitution of which they belong. On the other hand, those materials with which color, etc., are connected, exist *per se*. The latter are called substances (essences, realities), the former, adherencies (accidents). The connection between the substance and its accidents, which in popular language is expressed by the auxiliary verb "have," is called inherence. The soul is a substance, its content an adherence.

<sup>1</sup> The reader will bear in mind that this is a mooted question. The Duke of Argyll, after citing some curious instances of instinct and mimicry, continues ("Unity of Nature," Alden, 1884, p. 54): "In the face of them it is now no longer denied that in all such cases 'Innate Ideas' do exist, and that 'Pre-established Harmonies' do prevail in nature. These old doctrines, so long ridiculed and denied, have come to be admitted, and the new philosophy is satisfied with attempts to explain how these 'Ideas' came to be innate, and how these 'Harmonies' came to be pre-established. The explanation is, that though the efficiency of experience as the cause or source of Instinct must be given up as regards the individual, we may keep it as regards the race to which the individual belongs." — TR.

since the body reacts upon the soul. To the inherent faculties belongs, for instance, the special capacity for music, which has its chief basis in the corresponding formation of the ear.

But there are also *acquired faculties, capacities*. They come into existence through the peculiar situation into which the person is placed by his birth, and which is necessarily peculiar to each human being. The child's environment is composed of two factors, the influence of the place where, and the society in which, he grows up. We see the significance of these circumstances, for instance, in the case of Linné, whose father owned a very beautiful garden. His mother quieted him, when a little child, with flowers; his father saw to it that he noticed the plants, that he learned their names and remembered them. Zinzendorf was brought up in the home of his grandmother, where he daily heard portions of the Bible read, and where Spencer, Francke and Canstein liked to associate with him. Inherent capacity is something inherited; the faculties we have acquired in the earliest years are an external appropriation.

From the above it follows that two pupils with exactly the same educational influences would develop absolutely alike, providing that

- (1) their bodily constitutions were completely identical;
- (2) their acquired capabilities were the same;
- (3) the hidden and uncontrollable influences which assist in education were in their minutest details identical as to quality and degree. But as these two factors never entirely agree, children of the same environment must develop differently. The educator cannot make of his pupil what he will; he cannot form him entirely according to his mind (as Helvetius, not Herbart, claims), for the inherent and acquired powers, together called individuality, resist

his influence when he has reached a certain limit; there are in addition to this all manner of influences that hinder the teacher and cross his plans, so that the pupil does not even become entirely known to him. The power of education must not be regarded as greater than it is, nor on the other hand, as less.

All educating influence affects the soul by means of the body. The senses are the gateways through which the psychic life makes its entrance. Nothing is in the mind that was not previously in the senses. From this it follows, that the better the senses of a person are, the richer and the more active can the soul-content be; the feebler or the fewer the senses are, the greater the loss to the mental life. The loss of the sense of sight alone would reduce the sense-percepts to one-tenth. A human being without senses would never obtain any soul-content. But merely to have good senses is not sufficient for mental culture; one must also come into contact with sense-objects. The mental activities are always developed in parallelism with the sense-percepts and in accordance with them as their prototypes. The preparation which serves as a basis for all mental work subsequently undertaken for the purpose of intellectual culture, is the elaboration of the ideas that we obtain from sense intuition (taking the word in its wider sense).

Every activity of the soul passes through the medium of the sensorium, from the first taking up of the objective in the external world, up to the highest manifestation of the internal, or the subjective. From this standpoint also Jean Paul's "Invisible Lodge" must be judged. This is a pedagogical romance in which the author seeks to answer the question, how a boy, by means of his native ability, would probably develop, who, removed from the harmful influences of the world, was brought up in an under-

ground chamber. Graphically as Jean Paul pictures the moment when the boy for the first time emerges upon the upper world in all its beauty, he has, nevertheless, forgotten that a boy who has not had the privilege of collecting a large store of concrete sense experiences is not in the least educable, but is utterly incapable of interpreting the external world. A case in point is Kaspar Hauser. Almost his entire youth he had been obliged to spend in a dark room. When after his liberation he was induced from a tower at Nuremberg to gaze upon the beautiful landscape, he turned away at once with evident disgust. Questioned later as to his conduct, he said: "When I looked toward the windows, it always seemed as if a board had been erected very close before my eyes, and upon this a painter had spattered his brushes of white, green, blue, yellow and red, all in motley confusion. Individual objects, as I see them, I could not then distinguish. I convinced myself later during my walks that what I had so seen were really fields, mountains and houses." The senses also require fostering care and exercise. They must be opened like a canal or a sluice, in order that the external world may enter into the soul. They must be rendered keen like a photographic apparatus, in order that the thousandfold things of the outer world may impress themselves upon the soul sharply, clearly and permanently, in images.

If we look into our mental life, we shall find without trouble the following: Something seems to take place within us, without our expending either active or passive force; this is perception. Something else seems to happen to us, so that we suffer under it. This is feeling. Another thing seems to proceed *from* us as our real acting. This may be called in general, striving.

In the older psychology representation (thinking), feel-

ing and striving (willing), were regarded as separate powers of the soul. Herbart, on the contrary, took the position that these three activities were only conditions of a common fundamental substance. He based his argument upon experience, metaphysics and mathematics. We can at this place make a beginning only of the exposition of the Herbartian theory of psychic life upon the basis of experience.

We will first consider Representation. Ideas are formed through the medium of the senses. If I take a piece of sugar in my hand, I get the notion of its weight. If I look at it, I get the notion of its whiteness. If I put it into my mouth, I perceive its sweetness. The notions of heavy, white and sweet, which in their separation are also called percepts, are in the simple soul combined into the image of sugar. This image formed from separate perceptions is the compound of all the perceptions which we have of an object. Just as the percepts mediated by different senses have been the result, not of a simple, but of a compound act, so, too, the percepts mediated by the same sense are of a compound nature. For instance, if I am to form a percept of a rose-bush, many perceptions must be made of the red, green, gray, etc. All the sensations together give us then the sense perception of the rose-bush.

Every sense is accessible only to certain excitations. Suitable to sight are the light-rays; these we perceive with varying brightness and color. If I see a white sphere, the ray of light emanating from that point of the surface next to me is brightest. All points farther removed send darker rays. Because in other instances of a similar condition of light-rays I have convinced myself of the sphericity of a given object, I conclude now, that the present object, at least on the side turned toward me, has a spherical surface. Therefore, when I ascribe to a body a spherical

form on the basis of my sight-impression, I have from the arrangement of the light-rays *inferred* the form of the object, but I have not *perceived* the form directly.

The auditory nerve is excited by sound vibrations. If these are regular, as, for instance, in a guitar string that has been caused to vibrate, the mind perceives a tone. In moving a chair, by which irregular vibrations are produced, there is caused in the mind the total-impression of noise. In compound tone phenomena (harmonies) the individual sensations blend into one total-sensation, which can gradually resolve itself into the sensations of partial tones. The chord CEG causes in the mind a total-sensation in which the three tones assert themselves simultaneously; but if each is to be heard distinctly, it can only be done in the form of sequence.<sup>1</sup>

The organ of the sense of taste is principally the tongue with its numerous papillæ, in which the extremities of the gustatory nerves ramify. They are excitable only by substances in a fluid state, chiefly those in chemical solution. For mental development the sense of taste, though not superfluous, is of but slight importance. But to the body it proves very serviceable. The same is true of the sense of smell. The olfactory nerves are excited by a chemical process upon the mucous membrane, in which oxygen is most important, for only such substances smell as combine easily with oxygen. Taste and smell often influence each other.

In feeling, we distinguish touch and general sensibility. The tactile sense is most highly developed in the tongue, the finger tips and the lips.

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<sup>1</sup> The sense of hearing is an *analyzing* sense, inasmuch as it is able to resolve a complex tone-mass into its component parts. This has been demonstrated especially by Helmholtz.

A sight perception is often considered uncertain until the sense of touch has been consulted. This is the reason, perhaps, why every person possesses the inclination to touch objects of sight with the hand; witness, for instance, the stereotyped warnings placarded in all museums. For mental development, therefore, the sense of touch is of great importance.

With the general sensibility are to be reckoned the pain sensations of the skin, and the muscle sensations. Upon the latter the movement of the limbs depends; by means of them also the organs of speech in singing are brought into appropriate position to produce any desired tone. The better trained the organs of speech are, that is, the more delicate their muscular sensibility, the purer and more certain is the singing. In unaccustomed bodily labor we easily grow weary, because in the absence of a delicate feeling in the muscles thus concerned, we employ partly too much and partly too little, and therefore useless, force.

That part of a sense-perception which remains in the mind after the excitation which has caused the perception has ceased, is called a percept, or perception. We acquire percepts of sweet, red, white, etc.; if such simple percepts are combined (in the case of sugar, white, heavy, sweet), there results a complex sense-percept or intuition (*Anschauung*). But the intuition is always the perception of the individual thing; of this oak, of that pine. We have a separate image of each of the various trees of our garden. But there is also an image that fits them all (the concept, *Begriff*). While the intuition is individual, the image of the last-named sort is general, abstract. Ideas can therefore be divided into two main groups, concrete and abstract (percepts and concepts). The concrete again separate themselves into simple and complex perceptions.

Ideas form the content of the mind; but the expression

*content* is not to be understood as if something had loosed itself from the external objects, which now had gotten from without into the mind or soul. In consequence of the excitation, there is formed in the mind a certain state or condition. Ideas, therefore, are soul conditions, or states. The soul is their bearer (the substance or essence of the ideas). The ideas meet in the simple soul. If I see to-day a tulip and to-morrow another just like it, I have not, therefore, two images of the tulip but only one, which after the second observation is clearer than after the first. Like perceptions, therefore, are blended ; they become one, which is also a clearer one.

Not all images are identical ; many are similiar to each other, *i.e.*, they have like and unlike compound parts. If I see a square table and a rectangular one, the similar parts of the images unite and stand forth clearer (the four feet, the board, etc.) ; the unlike parts, the notions of the rectangular and square form, also seek to come into clearness, but since neither will allow the other to advance, the unlike parts combat each other, and the similar rise into unhindered clearness. In the similar we forget the dissimilar, at least it requires a certain exertion in order to represent dissimilar things clearly. We say : Similar representations blend or fuse. The fusion takes place most easily when the representations appear at nearly the same time.

But there are also notions which are quite incapable of being compared, as heavy, white, sweet. There can be no thought of fusion here, because there are no like parts. But if they appear in consciousness at about the same time, they form a cohering group, a complication, as in the case of sugar. At a county fair we see the booths of the trinket vender ; the race-course and the multitude of men, women and children ; we hear the noise of voices and the cry of the grotesque fakir ; we smell the odor of flowers and of

tobacco smoke; we taste food and drink. These ~~representations~~ together form the complication of the ~~whole~~ <sup>whole</sup> ~~time~~ <sup>time</sup>

If I observe a plant with close attention, I think of nothing else; but if I am disturbed in this attention, the idea of the plant disappears: it makes room for the ideas which, for instance, a conversation gives rise to. The idea can ~~be~~ <sup>be</sup> ~~displaced, arrested~~ by others: we say also ~~it has~~ <sup>it has</sup> ~~diminished~~ and understand by this, that its ~~strength~~ <sup>strength</sup> ~~is~~ <sup>is</sup> diminished, until I am no longer conscious of it. It is the disturber goes away. I easily recall the idea again, when looking at the plant directly. The ~~representation~~ <sup>representation</sup> ~~which~~ <sup>which</sup> is still clearer, and soon fills my entire ~~consciousness~~ <sup>consciousness</sup> ~~now~~ <sup>now</sup> the ideas *raised* by the previous *representation* ~~which~~ <sup>which</sup> ~~turn~~ <sup>turn</sup> ~~sunken~~. An idea sinks, therefore, when it is ~~overlaid~~ <sup>overlaid</sup> by another; though it fades for the time ~~away~~ <sup>away</sup> from consciousness, it does not disappear from the mind; it ~~merely~~ <sup>merely</sup> rises again. Precisely speaking, ~~it~~ <sup>we</sup> ~~know~~ <sup>know</sup> ~~it~~ <sup>it</sup> is the foreground of consciousness at a time the other ~~ideas~~ <sup>ideas</sup> ~~have~~ <sup>have</sup> disappeared; they are below the horizon of consciousness, or they are in the condition of *being in a hole*. We speak, therefore, of a ~~movement~~ <sup>movement</sup> of ~~consciousness~~ <sup>consciousness</sup>

The ideas are never all in a state of rest, but ~~they~~ <sup>they</sup> are in a flux. We say of our thoughts, *they are in flux*, or in equilibrium when in ~~extreme~~ <sup>extreme</sup> ~~disturbance~~ <sup>disturbance</sup> of the stream of ideas takes place.

Even if an idea has ~~completely~~ <sup>completely</sup> ~~departed~~ <sup>departed</sup> from consciousness, it can, as the example above shows, ~~it is well~~ <sup>it is well</sup>, it can be reproduced. The process of reproduction takes place according to definite laws first discovered by Aristotle.

If I look upon a mountain scene, which has similarity to

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<sup>1</sup> Lazarus maintains that only a small number of ideas can be in consciousness at the same time, but not merely one idea alone.

one previously observed, the image of the latter will soon stand before my soul again: *Law of Similarity*. The want and poverty of the Prodigal suggested to him the comfort and abundance of his father's home: *Law of Contrast*.

After Pharaoh had released the butler from prison, the latter soon forgot what Joseph had urged upon him when he interpreted the dreams. Pharaoh's dream subsequently reminded him of his own and its interpretation, and then he recalled also Joseph's request made at the same time: *Law of Coexistence, or Synchronism.*<sup>1</sup>

If we have thoroughly learned in their usual sequence the (German) prepositions governing the genitive case (unweit, mittels, kraft, etc.), one word will draw into consciousness the next immediately following, because in committing them, it has always appeared in that order: *Law of Succession, or Sequence*.

Every idea continues in the soul; arresting an idea is merely binding it, rendering it latent, not annihilating it.

A concept or idea may be compared to an elastic spring, which may be pressed down and which then remains in this position as long as the pressure upon it continues, but which bounds upward as soon as the pressure is released. If an idea rises above the threshold of consciousness of its own accord, we speak of an immediate reproduction (liberation = rising-free [freisteigen] of the concept). Here are two cases to be distinguished. The first case we have before us, for instance, in waking from sleep, when the thoughts come forth of themselves, or on returning to our business, after an interruption, when the concepts of the objects with which we have been busy, rise anew of themselves, after

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<sup>1</sup> Who has not had an experience such as I have passed through, when in later years of manhood a bouquet of old-fashioned flowers, which to us children had been a delight, has often by its familiar odors given ineffable glimpses of ecstasy into the divine past of childhood?

they had been for awhile displaced. In these examples the track for the rising concept has, so to speak, become clear of itself. Let us now consider the second case. Let a concept A be depressed by another concept B. Now let an idea C from without, not fusible with B, enter into consciousness. A struggle now takes place between B and C, the result of which is a mutual arresting; by this arresting the previously oppressed concept profits and rises above the threshold of consciousness. The arrested idea is liberated by the arrester. Opposed to the immediate reproduction is the *mediate*. This takes place when an idea in consciousness draws into consciousness another which was already previously connected with it. The idea which causes the return is called *auxiliary*. When ideas are so related that the one will draw the other after it, we say: they cling together, they are knotted together, they are associated. The associations formed by fusion are the most permanent; while, on the other hand, in the case of complications or idea-groups which have only an external connection, a link may easily be lost.

The reproduction of ideas is not in all persons equally lively, nor in the same person at different times. In some cases it may be accelerated by artificial means, for instance, by the moderate use of spirituous drinks. So, too, it may be checked. In the fable by Hagedorn, the miser, when he sees what the monkey has done with his gold, gets so beside himself with rage, that he can no longer speak.

“Let me but get thee, thief, thy blood — ”  
Here stopped his rage the verbal flood.

So many ideas crowd into consciousness at the same time, that at last no one of them has predominating clearness. Strong sense excitations also have at times the same effect. For this reason the unpracticed speaker looks upon a fixed

point so as not to lose the thread of his discourse. It is well known that diseases of the nerves weaken the power of mental reproduction.

Memory is the ~~faculty~~ the mind has of preserving ideas unchanged, and of reproducing them.

We can also impress a thing upon the memory by observing the connection of facts. Thus the superscriptions of a well-known Bible story are easily remembered: 1. God calleth Abram. 2. He departeth with Lot from Haran. 3. He journeyeth through Canaan. 4. He is driven by famine to Egypt. 5. Abram and Lot return from Egypt, etc. In learning the cohesion of ideas, we notice the internal connection of the matter: we learn intelligently, judiciously (from *judicium*, judgment). One kind of memory (better of reproduction) is, therefore, the *judicious*.

If we have something in which there is no connection to commit to memory, we must help ourselves in another way. In order to learn the names of the rivers which rise in the Fichtelgebirge we remember the word *mens*, and with the assistance of this word we shall easily reproduce the names Main, Eger, Naab and Saale. The words, "Every good boy does finely," will fix the names of the notes which have their position upon lines. Here we have created an artificial connection between the really unconnected. This manner of learning is called *artificial*, or *ingenious*, because the *ingenium*, or wit, seeks resemblances between things often lying far remote from each other. The second kind of memory, therefore, is the *ingenious*.

But there are cases when we can learn neither judiciously nor ingeniously; as, for instance, lists of words such as prepositions, prefixes and suffixes, etc. Such are to be learned in their given order of sequence by many repetitions alone. The sequence will become the stronger, the oftener the list has been repeated. By association one

word will draw the other, and that the next, into consciousness. This is *mechanical* memory.

These three kinds of memory find their application in school; most of all the judicious. In the case of the ingenious memory, which may sometimes be of good service, we must not, of course, overlook the fact that a second thing must be learned in order to retain the first. Of a *good* memory several things are required: The process of committing must not be too difficult (ease); what is committed must remain unchanged (faithfulness); the thing learned should be permanent—the memory must be ready to serve, *i.e.*, the thing learned must be reproducible at any moment; finally, the memory should be extensive. All these qualities combined are found only in the rarest instances. Thus ease and permanency usually exclude each other, which may be explained by the fact that a rapid fusion of ideas does not take place so thoroughly as a slow one. A good memory is attained, if we take pains to bring new ideas into intimate connection with older ones. The passionate novel reader weakens his memory immensely because the rapidity and haste of his reading leave him no time for thorough performance of the process of appropriation. If the ideas enter into no connection, then the acquired material has no value, because it is subjected too slightly to the laws of reproduction; it also fades too readily from consciousness because it has no points of attachment.

But the memory can also be strengthened through practice. He who would thoroughly commit a thing to memory, must watch over it, lest other ideas crowd themselves between the members of what he wishes to memorize and thus hinder their connections. This requires a high degree of self-control, which can be the result only of long-continued practice.

When Joseph bound one of his br-

"We are verily guilty concerning our brother," and Reuben said further: "Spake I not unto you," etc. In the soul of Reuben rose again the image of that occurrence, and he had at the same time the consciousness that it had taken place earlier. That was *remembering*. We can therefore call remembering the reproduction of an idea, if we are at the same time conscious that we have acquired the latter earlier. It can be voluntary or involuntary. If it is brought forth voluntarily, reflection is involved.

If the obscuring of an idea has reached such a high degree that it disappears for any considerable length of time from consciousness, it is "forgotten." "Yet did not the chief butler remember Joseph, but forgot him." But there is no such thing as absolute forgetting, as appears from the sequel of the Biblical story referred to; for as long as an idea remains in the soul (and it is well known that it can never entirely disappear from it), so long there also remains the possibility of the reproduction of this idea. A voluntary forgetting is at least very difficult; on this account, as is well known, the Greeks ascribed miraculous power to the mythical river Lethe.

If I have seen a mirror, the frame of which is covered with carving, I can think of the latter as absent, and then an entirely simple mirror stands before my mental eye. The idea in this instance has been reproduced in a changed form. The activity of the soul, by means of which this change is accomplished, is called Imagination. Since in the above instance something has been thought away, withdrawn, abstracted, viz., the carving of the frame, this kind of imagination is called abstracting imagination. Just as the abstracting imagination can master objects of sense, so, too, can it master objects of thought. Imagination often abstracts the less important. It eliminates what is non-essential, whereby the essential is seen the more clearly.

Thus we form general concepts. But after I have seen a plain mirror, I can also add in thought the carving. In this case a new element is brought into the old idea. Schwab read in the newspaper the report that in Tuttlingen lightning had killed four persons. By means of the second kind of imagination, he introduced a multitude of new features (the playing of the child, the spinning of the grandmother, the conversation, etc.), and thus rose his well-known poem. This kind of imaginative reproduction is called the *determinating* reproduction, since it introduces closer modifications.

In the poem "Of the Little Tree that went Walking," Rückert disregards the fact that the plant is bound to its place and introduces the new modification of speaking; here the abstracting and the determining imagination co-operate and thus form the combining or constructing imagination, which often unites the most contradictory elements.

It is clear that the imagination does not really create anything new. It only designs its work with the given material, the ideas. Just so is it with dreaming. This usually takes place in a semi-sleep, and can have a twofold occasion, a bodily and a mental one. The sensations, for example, which are created by difficulties of breathing, awaken similar, previously acquired ideas. And thus it happens that persons suffering from breathing difficulties often dream of climbing mountains or of other extremely fatiguing movements. Ideas which by day very forcibly enter into the foreground of consciousness by night often occasion dreams which sometimes grow so exciting that they cause us to awake. Every one who has anticipated an examination which seemed to him difficult can confirm the above. Dreaming consists of a concatenation of various ideas, which proceeds according to the laws of reproduction. As we have no control over our ideas in sleep, it becomes plain

that ideas often combine, which, in a waking condition, we would not permit to do so.

It needs no special demonstration to show that in actual dreaming, the laws of reproduction are active mostly in a tangled and inextricable state; yet the correctness of the doctrine of psychology will not be disputed when it declares that the most fantastic dream develops according to definite laws.

Dreaming can instruct us concerning our own thought-content. Moral defects often first become known to us in dreams. Here come thronging forth many bad and impure thoughts that we would prohibit in a waking condition. For this reason we need not fear to be imposed upon by one who would not even dream of committing such an act.

Having hitherto discussed concrete ideas chiefly, we will now speak also of abstract ideas, which arise from the concrete. The transition from the concrete to the abstract takes place for the most part involuntarily through numerous perceptions of things of a like kind. If a child has seen only a table with quadrangular top, he cannot conceive of any other table. The conception that he has is individual. It fits only a definite form; but if he sees a table with a round top, his notion of a table is already expanded, for it fits at least two kinds of tables. Each additional concrete notion of a different kind of table expands his conception of *table* in general. But the latter image is then no longer the image of an individual thing; it is an abstraction which fits at once all the observed things, but which cannot itself be observed. Without knowing it, the child has gradually dropped all accidental qualities (quadrangular, circular, semi-circular, etc.) and has held fast all concordant characteristics. There has arisen an ideal image, but one which may become modified further in consequence of new experi-

ences (of flower-tables, sewing-tables, etc.). Characteristics which before a new observation have been regarded as essential, may after the observation be excluded as non-essential. The ideal image therefore remains incomplete in so far as it is not the result of observation of all existing varieties of tables. Then, too, the purposeless observation of individual tables does not render an accurate account as to what is concordant and what is not.

Such an image, spontaneously arising, is called a natural psychic concept (*natur-wüchsiger psychischer Begriff*). In the psychic concept we find the essentials and non-essentials of a thing mingled. In order to separate them completely, that is, in order to find the logical concept, two things are necessary ; first we must know, for example, all varieties of the table, and then the non-agreeing characteristics must carefully (with purpose) be excluded. If we continue our illustration, we find that that which otherwise in life seems to us to be of importance, its size, its form, the number of its feet, its solidity, the material of which it is made, etc., are of no consequence for the real essence of a table, but that it necessarily must have (*a*) a horizontal free-lying board or top, (*b*) that this must be suitably supported, (*c*) that the whole must serve the design that things may be laid upon it, or that something may be done upon it. In these three designations is contained that of which the nature of a table *per se* consists. From this illustration it is seen that it is not easy to define the notion of a thing correctly. If the definition of a notion is incomplete or false, and if it is nevertheless regarded as correct and further applied, the entire thought structure which has been erected upon it is false. Notions of objects of sense are more easily formed than notions of objects of thought, because the characteristics of the latter are not so easily discernible. Concepts are only the products of thought, not really

existing things. There exist only definite oaks, definite beeches, definite pines, but not what would be a tree in general. The *logical* notion remains unchanged, but not the *psychical*; the latter is *vacillating*. The psychical notion differs in different persons, the logical coincides in all. Those notions, too, which are formed intentionally, remain psychical, if all the kinds of the object are not represented. By far the most of our notions are psychical.

When two ideas rise into consciousness (simple or compound concrete notions, or abstract ideas), we reflect whether they are related to each other. Let one notion be "man," the other "mortal"; we find a relation between these notions and express it with the words: "Man is mortal." We have expressed a *judgment*, an affirmative judgment. Just as there are affirmative judgments, so there are also negative, denying judgments. If the judgment has reference to one object, it is singular; if to several (some birds are *Raptore*s), it is particular; "All men are mortal," is a universal judgment. If I see the sky overcast by dark clouds, I judge that it will soon rain and I judge in this manner, because at other times under the same conditions the rain came. I am therefore conscious of the reasons upon which my judgment is based; such a judgment is called a conclusion, and in this case it is a conclusion from analogy. Because up to the present all men have died, I conclude that all men are mortal. This is a conclusion from the many individuals to the general. The more numerous the individual instances, the better the prospect, that the general, the conclusion, is true.

Ideas are acquired in order that they may be utilized. To this end they must be able to return into consciousness easily. Therefore, it must be the care of the teacher to see that the single ideas enter into combination with each other,

in order that the thought-complex may be easily traversed from any desired point; otherwise, though under favorable circumstances groups of ideas may be formed, there is no connection between them; each group forms an isolated whole for itself,—the one knows nothing of the other, because it is separated from it by a gulf. The willing and acting of a person, as an outgrowth of his ideas, are in that case governed by the group which at that instance is in his consciousness. There arise then certain phases of his manner of thinking and acting which continue until the content of the group has become exhausted; then comes the turn of another group, which is often an utter contradiction of the group first in control. A very striking illustration of this is furnished by Immermann in his "Munchhausen," in which he has an old captain appear, who has served first in the French and then in the Prussian army, and who is now alternately the enthusiastic supporter of the great Napoleon, now of the king of Prussia. He creates military order among his recollections and divides them, as it were, into two separate corps, which act independently. For a time he is a Frenchman, absorbed in the glories of the Napoleonic time, then again for a time he is as decided a Prussian and eulogist of the exaltation of that great epoch of national uprising.

So, likewise, it is possible that one may be orthodox to-day and to-morrow the most pronounced free-thinker; that he should to-day defend one opinion and to-morrow with equal zeal maintain the opposite. Since the essence of character rests primarily upon a certain steadiness of volition, which, we know, proceeds from ideas, it becomes evident that a person with several isolated concept-masses will always possess an unstable character, whose desiring and willing cannot always be consistent. We must therefore assent to Herbart when he says, "The mastery over edu-

cation is not secured until one knows how to bring into the youthful soul a great thought-complex, which possesses the power to overcome what is unfavorable in its surroundings, to absorb what is favorable and unite it with itself."

These concepts which approach another (greater) concept group may stand to the several parts of the latter in a threefold relation; they may be *like* them or *similar* or *incapable of comparison* with them. As we have seen, like concepts *coalesce* into a single clearer one; nothing new has therefore been added to the treasury of ideas. Concepts incapable of comparison maintain a mutual indifference; their connection always remains an external one. Consequently we may speak of assimilation or apperception only with reference to similar concepts. In the process of apperception older concepts or concept-masses are often *transformed*. The transformation of new notions depends upon the character of the older ones. The latter tell us, for instance, that the earth is a sphere and revolves about the sun. The eye communicates to us the notion of the earth as a plane about which the sun revolves. Nevertheless, we do not believe the evidence of the eye; the notion communicated by it is therefore transformed. The child that has seen only double roses, believes that being double is essential to the rose. But this notion is transformed as soon as he has become acquainted with a rose that is single. Older notions, therefore, can be transformed in the process of apperception.

The relation of perception (cognition) to apperception (appropriation) is characterized by Lazarus as follows: The soul filled with any psychic content reacts differently than it does without it, and thus this very special, definite, previously acquired content, to the degree and in the manner in which it is of influence upon the subsequent process, appears as the co-operative organ of the soul. Pure percep-

tion by a soul having no content at all is a pale abstraction. Such perception scarcely exists even in the new-born babe. The soul as a sentient being perceives in accordance with its original nature, while it at the same time also apperceives in accordance with the elements acquired by previous activity. An apperception is not added to the finished perception, but the latter takes shape under the co-operation and essentially determining influence of the former. To this proposition one can surely assent, especially if one agrees with Lazarus in denominating as apperception the adoption into the thought-realm of those notions (for instance, in the recognition of a person) which find there other concepts identical with themselves. But this part of apperception, which together with perception forms one act, is very often insufficient completely to absorb the new; very often there are but few and delicate threads which connect the new with the old in the act of perception. But the connection ought to be as many-sided and as strong as possible, and hence in very many cases there must follow after the act of perception a thorough "reflection," in consequence of which there takes place a new and stronger apperception. Frequently this requires the assistance of others, as, for instance, the teacher must often call up to the mind of the child those images which are similar to the new. If all the ideas by means of which in a given case the mind apperceives were always "standing like armored knights at the inner citadel of consciousness, in order to pounce upon everything which shows itself in the portals of the senses, to overpower it and force it into service," such assistance would not be at all necessary. But since this is not the case, it happens that similar concepts or concept-masses remain for some time in consciousness without contact, and blend only when they are reproduced simultaneously. We can define the essence of apperception as that

mutual interaction between two similar concepts or concept-masses, by which the one is more or less changed by the other and ultimately blended with it.

It is important for the complete success of apperception, that consciousness concern itself exclusively with that which is to be appropriated and to let alone everything foreign to it; to permit only such ideas to rise as have some relation to the new; in short, that consciousness concentrate itself upon the new. This concentration, or disposition of consciousness, for the purpose of securing an accession of ideas we call *Attention*. Attention differs, according as it is exercised without the aid of the will, or by means of it. If I am lost in thought and a shot is fired, all my thoughts are gone in a moment and I listen only to the sound of the shot, without specially willing to do so. If the children in my class are restless, and I hang a picture upon the wall, the restlessness will soon disappear; the children become attentive to the picture without forming a definite resolution. There is accordingly an involuntary attention, which is based upon the strength and the newness of the sensuous impression; it is called *primitive* or *original* attention. If there is a child in the room while I read aloud in some learned, scientific book, he will not listen to me; but he will pay attention as soon as I take, for instance, a book of fairy tales, because this deals with ideas that are largely similar or at least related to those in his own consciousness. In this case the attention does not depend upon the strength of the sensuous impression, but upon the fact that related images are aroused and apperception takes place. This species of involuntary attention is called *apperceiving* attention. Wholly unknown ideas will not arouse our involuntary attention, because there are no points of attachment for them in our minds; something wholly known will perhaps arouse, but not hold it permanently, since no idea is

apperceived. A happy mixture of the known and the unknown interests us most. For education the involuntary apperceiving attention is extremely important, since with its co-operation the new is worked up without compulsion, *i.e.*, is brought into intimate relation to the present store of thought.

But involuntary attention of itself alone is very often too weak; the teacher must, even though the children are somewhat interested in the subject, request them to collect their thoughts, so that they may not be half but entirely with the subject; for example, that they may not observe the experiment in physics superficially, but in such a manner that they may discover at once what is to be shown. Such attention requires that the child collect himself, that he do not allow himself to be disturbed by the distracting influences of the external world, but that he free himself of them, that he concentrate his attention and control the course of his thoughts. This is the way to self-control; this guards against flightiness and listlessness, which are the bane of moral life. But, nevertheless, the involuntary attention must assume the controlling position in the recitation, and never may its co-operation be dispensed with; for the mere purpose of the pupil to be attentive produces no strong comprehension and little cohesion of what is learned; he wavers constantly, and often enough gives way to weariness. From this follows logically the demand, that we attach all the new (unknown) to the known, *i.e.*, that we make sure of the involuntary attention at the beginning of the recitation hour, not waiting with the hope that it may appear during progress of the recitation.

Thus far we have spoken of concepts or ideas (*Vorstellungen*). They are the primary states or conditions of the soul, and can, in turn, have their own (secondary) conditions. The latter divide into two groups, *viz.*,

the *feelings* and the *desires*. We will first speak of the feelings.

A mother has promised to take her two children to the fair. Long in advance, they picture to themselves, upon the basis of previously acquired ideas, all the glories that await them. The looked-for day arrives; they think of nothing else, forget eating and drinking, always busy with those concepts that have reference to the fair, while all others have sunken. Shortly before the appointed hour, one of the children is naughty and his mother says: "Now you must stay at home." There arises a severe struggle within the child. Those ideas that have previously been rising are so lively that they cannot at once sink below the threshold of consciousness (be forgotten), while new ideas not at all reconcilable with the former (prohibition), appear with full force. Thus the rising of concepts is arrested, and the result of check is a feeling of pain, which relieves itself by weeping. Now the sister intercedes for the offender and mamma says, "For this once I will let it pass; come, let me dress you." Now the previously arrested concepts fly up into consciousness, as if by a suddenly released spring, because arrest has disappeared, and the child laughs out, while the tears still stand in his eyes. A feeling is therefore the becoming aware of an arrest or promotion of those ideas which at the time predominate in consciousness. Arrest produces a feeling of pain; promotion a feeling of pleasure. If feelings of pain and feelings of pleasure follow each other so rapidly that they cannot be kept apart, we speak of mixed feelings, fluctuations of feeling.

But not all checks and promotions in the concept life appeal to consciousness; most of them are too weak to render themselves noticeable singly. All faint promotions and checks together form a faint total-feeling, called life or vital feeling, which is an obscure feeling of pleasure, because the

promotions, if not always, yet in general, overbalance the arrests.<sup>1</sup> This vital feeling forms, as it were, the threshold, above which the individual feeling must rise, if it is to become perceptible.

In common usage feelings are often confounded with sensations; but they are distinguished from them in that the former bring into our consciousness conditions of the soul, the latter conditions of the body; again, sensations are primary, feelings secondary soul-states.

We have now recognized that feeling is not a separate, independent faculty of the soul, but only a consequence of the mutual interaction of ideas. These feelings are divided into, (1) those whose inception depends upon the form of the thought movement (formal feelings); (2) those which receive their character, not from the direction of the ideas, but from their content (qualitative feelings).

Let us make these two kinds clear by examples. 1. We wish for rain. In consequence of previous observations there has been formed within us the following concept series: (1) Oppressive heat. (2) In the distance a cloud-covered sky. (3) Approach of the clouds. (4) Lightning and thunder. (5) Rain. If now we observe the oppressive heat, we reproduce the entire series. As the first observation corresponds to the first reproduced idea, both notions unite into a single one. If the next members of the series receive a like confirmation by observation of the occurrence of nature, the process will each time take place. The consequence of this is, that the foremost members of the series acquire force. By this means the unfolding of the older series is accelerated, and the pressure of its individual members to unite with the corresponding one of the new series

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<sup>1</sup> Conditions of *feeling* are produced only when the association of ideas is abnormal, entirely different from the ordinary.

grows from series to series. Reproduction, which has been greatly strengthened and assisted by the newly offered, now anticipates what is to come, and represents to us as already present the final member of the observation yet to be made. It is presupposed that the fact will also agree with the reproduced final member, just as, for example, the first two members of the observation agreed with the first two members of the reproduced series. But the concept series unfolds much more rapidly than the occurrences and their observation; we have already arrived in our thought at the final link of the older series and of the newer observations, while perception, on the other hand, has proceeded no farther perhaps than the approach of the shower. This throws us back upon the reproduced concept (3) again. In the mean time, before the observation corresponding to the old link (4) takes place, we have arrived with our thought at the final link of the observation and must again return to link (4). We are in the first stage of expectation, in that of suspense. Upon the latter follows the solution. If the last observation agrees with the final link in the reproduced series, this has no longer any obstacle to overcome. The concept formed by the observation unites with the reproduced concept (5), and the strengthened concept rises unhindered. We have the feeling of *satisfaction*. But if the clouds are suddenly dispersed before the rain has fallen, the concept thus unavoidably forced upon the mind comes into conflict with the reproduced opposing one. The feeling of this check is the feeling of *disappointment*.

2. A person in distress applies for aid to a wealthy man, to whom poverty has remained entirely unknown. The latter is not inclined to yield to the request; thereupon the suppliant pictures to him his poverty with all its unattractiveness. But the rich man cannot put himself into the place of the poor man, he does not know how he feels, be-

cause he lacks the necessary ideas; he turns him off. Next door lives a man who has achieved success from the most humble beginnings. The poor man here prefers the same request accompanied by the same description. This arouses in the mind of the rich man all those images that the oppressive feeling of poverty formerly produced in himself, and which now disturbs the mind of the suppliant. The rich man puts himself into the situation of the poor man. He reproduces in himself the mental condition of the other. This condition can arise, for example, on the one hand, out of the ideas of the necessity of eating and drinking, of clothing, and on the other hand, out of the ideas which have reference to the impossibility of satisfying these necessities. This arresting of concepts the rich man feels likewise; he sympathizes with the suppliant, providing he does not forcibly suppress the emotion, and acts accordingly. Sympathy, therefore, is the copying or reproducing of a mental condition, which results from the interaction within a concept-range of definite content; it is a qualitative feeling. He who has not approximately those concepts which disturb the soul of a sufferer, cannot sympathize with him.

As to their content, according as they have reference to truth, beauty, morality or religion, the qualitative feelings are grouped into intellectual, esthetic, moral and religious feelings. Sympathy belongs to the moral feelings.

Since feeling is not a separate soul faculty, but results from the interaction of concepts, it follows, that every influence upon the feeling must pass by way of the thought-realm.

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We have mentioned the desires as the second kind of soul conditions; that these also rest upon the interaction of concepts may be seen from the following.

A child has acquired a concept of candy. This concept is

composed chiefly of two ideas, which are the result of sight and taste sensations. The child, passing the show-window of a confectionery shop, is attracted by the sight of the jars of candy there exposed; the taste concept, which was acquired simultaneously with that of sight, is reproduced by the latter. The taste concept is now more obscure than at the time of its acquisition, and it struggles constantly to attain greater clearness. But this desired clearness can be attained only by the renewed tasting of candy. There exists an obstacle, therefore, which is in the way of the rising of the concept to full clearness. The longer the child remains standing before the show-window, the more vigorously the rising concept struggles against the obstacle, of which the child is conscious. The taste concept of the candy is in the condition of desire. The desire is the becoming conscious of an effort of a concept to overcome its obstacles existing in consciousness.<sup>1</sup> The child desires the candy, in order to bring the concept in his mind to complete clearness. The real object of the desire is, therefore, not the candy, but the taste concept in question; the candy is desired only as a means to an end, as an external means to an internal condition. To the objection, that if only concepts were desired, it were inconceivable why so many desires remain unsatisfied, we reply, that if objects were desired, no desire could be satisfied, since no object as such can enter the soul. "But the contradiction, that we already possess the concept which we yet desire, finds its solution in the fact, that we do not possess the concept in the manner in which we desire it, that we have as a mere reproduction what we desire as a

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<sup>1</sup> *Desire* is distinguished from *feeling* in that it does not, like the latter, indicate a single momentary condition of thought, but a passing through several such conditions, *i.e.*, a *movement*. Single cross-sections of this movement are *feelings*.

sensation, or that we possess the concepts obscurely, which we desire to possess clearly."

A hungry person desires the sensation of satisfaction by means of bread, and a thirsty one the quenching of thirst by means of water. In the case of the child above referred to, therefore, desire is satisfied, if the desired concept has come to full clearness, that is, when the rising of the concept in question is facilitated by the tasting of candy. A desire has, like a feeling, two principal stages, the suspense and its solution. The suspense is greatest just before the act of satisfying, just as the thirsty person has the strongest desire for satisfaction when he puts the cup to the lips.

Since desire is based upon the interaction of ideas, it follows that no one can desire a thing of which he has no idea. A kind of food hitherto unknown to us we can desire only in so far as we take for granted that it will assist in bringing into perfect clearness certain taste concepts which we already possess.

But desire must not be confused with the will. Every act of willing is indeed a desire, but not *vice versa*. The child before the show-window has no money for the acquisition of the candy; neither does he know of any other way to gain possession of it; it seems impossible for him to obtain it. Here the desire appears only in the form of wish. The state of the case may be otherwise. The child knows that for money candy is to be had; money he will obtain of his mother for some service about the house; in order to do this service, he must go home. In the child the following series takes form, leading up to the acquisition of the candy: 1. To go home. 2. To perform a service. 3. To ask mother for a reward in money. 4. To buy the candy. While this causal series comes to the aid of the desire, volition springs from it. To will, therefore, is to desire something with the conviction that it may be attained. He who says, *I will*

has already in thought conquered the future thing; he sees himself achieving, possessing, enjoying. Show him that he cannot,—and he wills no longer, as soon as he comprehends you. The desire may perhaps remain, and rage with impetuosity, or endeavor to succeed with the utmost craftiness. In this endeavor lies again a new volition, no longer relating directly to the object, but to the movements that one makes, accompanied by the knowledge that one can control them, and may by means of them secure his object. The general desire to conquer, and therefore wills the maneuver of his troops. He would not will these, did he not know the force of his command.

Whether a desire is to pass into a volition depends also upon the insight into the attainableness of the desired object. But the thing desired need not really be attainable; it need only seem to us attainable, in order that the desire shall become a volition. The injudicious child wills where the adult only desires. The inexperienced youth wills far more than the man who has tested his powers repeatedly in the attainableness of the things desired. Napoleon *willed* as Emperor and *desired* as a prisoner at St. Helena.

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Upon our course hitherto we have met nothing which could argue against the correctness of the Herbartian psychology. But whatever result advancing experiment and study may reach, so much will always remain certain, that feeling and will can be determined only by the culture of the concept life, if a determination is at all possible. If the latter is not the case, there can be no pedagogy; but if it is the case, then do the doctrines of the pedagogy of Herbart and his school hold true, even where another opinion is held as to the nature of the soul.

## QUERIES.

1. Does the law of the conservation of energy apply in the transmission of the nerve excitation to the soul? How is such transmission to be explained?
2. Can the original vacuity (absence of content) of the soul be demonstrated empirically? Logically?
3. What soul-content has the child possibly acquired before birth?
4. About when does the acquisition of absolutely new simple ideas cease?
5. What is the most important factor with respect to capacity?
6. Why is it absurd to assume capacities which are supposed to have their basis in the nature of the soul?
7. How do the notions of space and time arise?
8. Which phenomena are best adapted to aid in the demonstration of the fact that there are fixed laws in the mental life? What process seems to lack conformity to law?
9. What significance has the narrowness of consciousness for the judging of the nature of the soul?
10. How may the arresting and promoting of ideas be made more clear by means of illustrations? How may they be explained?
11. With what right may it be asserted that there are not four but only two laws of reproduction?
12. How is it that a concept series may be reproduced forward better than backward?
13. Is there for the development of the intellect a very special point of beginning?
14. In what relation does the intellect stand to imagination?
15. What significance has language for apperception?
16. What reasons may be adduced against the distinction between qualitative and formal feelings? What reasons for?
17. How may voluntary attention be explained as a mere condition of the concepts?
18. In what way has the assumption of mental faculties probably been arrived at?

## PART II.

### ETHICAL BASIS. THE FIVE ETHICAL IDEAS.

ETHICS, or moral philosophy, is the science of good and evil. It gives us directions as to how we must arrange our conduct, and is therefore called practical philosophy. Theoretical philosophy does not discuss what should be done or left undone. In the case of the will, for instance, it investigates only how it proceeds from ideas, what it is; to judge whether it be good or bad, whether it ought to be or ought not to be, belongs to the province of practical philosophy.

When we consider the actions of men, we find some that are praiseworthy and some that deserve censure; or some good and some bad. Again, there are occurrences in the presence of which our judgment as to whether these are good or bad is not aroused at all. If a person in a somnambulant, therefore unconscious, condition commits homicide, we cannot accuse him of a bad action, even though the misfortune should touch us closely. If a woodchopper's axe unexpectedly flies from its helve and kills a human being near by, it does not occur to us to declare the man a criminal, since the accident has happened without (contrary to) his will. If a rich man throws away a pair of shoes that might still be serviceable, and a poor man picks them up and is pleased with them, we do not attribute any praise to the former, because without his will the poor man has received a kindness. From these illustrations it follows that what is done without

consciousness and without (contrary to) will is neither good nor bad, neither praiseworthy nor censurable, but in the ethical sense, indifferent. This does not, however, prevent its being personally very agreeable or very unpleasant to us.

If an action is done with consciousness and will, it is subject to the ethical judgment, but this judgment is astir also when we merely recognize a bad or a good will. We disapprove when a person has the will to harm another; we praise him who is willing to help an oppressed fellow-man. The corresponding action (so far as we are able to recognize the will without it) is unessential for the judging; it is inherent in our notion of will that it pass over into action whenever this is possible. For a will which, though it might act, yet rests contented in mere desire, cannot strictly be called a will. The worth of the will in a strict sense cannot depend upon what it executes, for whether it acts or not does not depend upon itself merely, but also upon external conditions. If by the greatest efforts of the will, nothing were accomplished and only the good will should remain, it would nevertheless like a jewel shine for itself, as something which has intrinsic value. Therefore not the action but the will is the real object of ethical valuation.

When Christ was tempted, though he knew and thought the evil, he had no pleasure in it, willed it not; when Eve stood before the tree of knowledge of good and evil, she likewise knew and thought the evil, but she willed it also. Christ remains free from censure. Eve is subject to it, though both thought the evil. Hence it follows that thinking (representing) the evil is not in itself reprehensible, but only the will itself. Dives in the Gospel certainly knew and thought the good when he saw the poor man lie before his door, but he did not devote himself to it, he did not will it. Therefore no one accounted to him this thinking

(representing) of the good as something praiseworthy. Therefore not the representing of the good is praiseworthy, but only the will. It is only to the will and that which tends toward the will, as, for instance, feelings, inclinations and desires, that we attach intrinsic value or the absence of it. These are also meant when the Bible speaks of the reprehensibleness of bad thoughts.

Ordinary usage designates as good many other things besides the good will; for instance, intellect and courage, wealth, power, honor, etc.; but all these things can also exert a very bad influence, when the will which should make use of them is not good. For there have been many intelligent, courageous and mighty villains. As a result of our discussion we reach the famous proposition of Kant: "Nothing can be thought of anywhere in the world, or even beyond it, which without qualification can be regarded as *good*, except the good *will!*"

Between good and bad there exists an irreconcilable opposition; what is bad cannot at the same time be good, and *vice versa*. When a person robs a rich man, he cannot make this evil deed (as the expression of an evil will) good by bestowing the stolen money upon some needy person. The well-known proposition that the end sanctifies, or makes good, the means, though they may in themselves be bad, is therefore false. But though there exists this irreconcilable opposition between good and evil, it does not follow that a human being with bad traits of character can therefore have no good ones at all. For a person's character is of a composite nature, and permits therefore a mixture of good and of bad traits. But each individual trait admits of but one predicate. Because evil stands in opposition to good, it cannot be the beginning of good, nor is it a mere lack of good, as, for instance, cold is a lack of warmth.

In general there are two motives that determine the

volitions of men. Jacob fed hungry Esau, because in so doing he had an advantage in view; the Samaritan bound up and took care of him who had fallen among thieves, without considering any personal advantage. The former had a material interest in the course he entered upon, the latter was disinterested; the former had himself in view, the latter was unselfish. These examples represent the two kinds of will-motives.

Let us consider volition of the first kind. Here the question is always: Has the willing pleasant or unpleasant, useful or harmful consequences for him from whom it proceeds? The volition is therefore valued not for itself, but only for the sake of what may be secured by means of it; it is therefore mediate. If a will chooses only with reference to what is pleasant or useful, it occupies the standpoint of eudemonism, the doctrine of happiness, or well-being. It is eudemonism to do a good deed merely to secure thereby a feeling of satisfaction, as when one seeks to live in peace with his fellow-men because these pleasant relations react favorably upon himself. Such a volition has no ethical value. He also who refrains from doing evil only because he fears the punishment of an avenging God, and does the good only because he hopes to secure future reward, is yet far remote from true morality; he has scarcely entered her outer court. Is not the good to be done for the sake of its intrinsic value, and does it not cease at once to be morally good when it emanates from other motives? In fact, whatever may be gained in psychological activity by the mixing in of divine authority with the motives of ethical action, is lost again, on the other hand, in the purely moral value of the action. Eudemonism easily changes into egotism; this happens when, in order to secure our own well-being, we harm others. Since in the case of eudemonism the desire clings to a substance (matter) as a

determining cause (motive) of the will, *i.e.*, to an object that is to secure enjoyment or well-being to him who wills, we may speak of materialism in an ethical sense, which is not to be confounded with the materialism that denies the existence of spirit in contradistinction to matter.

A purely ethical volition is seen in the second example cited above (at least so far as we may judge this volition by the act). The Samaritan did not ask himself, "Shall I derive any profit or pleasure from my willing?" He did not ask whether by means of his kindly deed anything might be obtained for himself, but he regarded the willing *per se* as something good, something worthy; he did the good for the sake of the good. To take another example: A son discovers that his deceased father has harmed a neighbor, and restores to the latter his loss. The act of restitution, providing it is possible, is demanded by the moral law, but it becomes moral only when it is done with no reference to the consequences that may follow (good reputation, etc.). For it is not enough that what is to be morally good shall be done in accordance with the moral law, but it must also be done for the sake of the latter.

How then may the marks of a good will be recognized?

It has been said, that to this end the origin of every will must be investigated. But a good will rises out of the sphere of concepts in the same manner as a bad one. A psychologist, to whom the difference between good and bad was entirely unknown, would not by the minutest analysis of the origin of the will discover this difference. In psychology it is just as it is in physiology with reference to disease and health, normal and diseased conditions of the body. According to physiological conception these phenomena also fall under the same physical laws, and in the explanation it is a matter of the utmost indifference, whether the conditions to be explained are normal or abnormal.

This is the so-called theoretical method of viewing things, largely employed, for example, in judging the personality of Rousseau, where it is taken into consideration that he lived and grew up in a corrupt society. His conduct is conceivable, explicable, indeed, but not for this reason justifiable.

But even if it is thus insufficient for the ethical judging of a will to know how it originates, this knowledge becomes valuable in pedagogy where the formation of a good or a bad will is concerned. The teacher must know upon what factors the formation of a good or a bad will depends, if he would not leave it to chance whether he employs the right means in education.

Different from the physiological method, and yet belonging to the theoretical method of viewing problems, is cosmic or cosmological ethics. Its representatives proceed from the proposition that our will is a part of the universe and must seek its norm in the universal cosmic reason, in the cosmic order. To live well means, in this sense, to live so as to be in harmony with the universal cosmic order, *i.e.*, such order as is suitable for the existence of the entire social order. In that case again the good is done not for its own sake, but because it seems expedient. But this is again eudemonism.

Similar to this is that view which proceeds, not from the cosmic whole, but from the nature of the individual, and then says with Rousseau: That is good which is in accord with human nature. But then all acts are performed for the sake of human nature, *i.e.*, because they are useful (not as it should be, for the sake of ~~worl~~<sup>1</sup>) and this is also eudemonism.

All these tendencies value the <sup>speculative</sup> investigations. If this method of rect one, then could only he know

evil who possessed an accurate insight into the nature of the will, of human nature, of physical laws, etc. How variously must then the same will be judged from these varying standpoints! But there is yet another, better and more certain method of valuation, which does not depend upon theoretic knowledge. When a criminal sets a house on fire, our judgment does not wait for a psychological or any other explanation, but springs forth at once in the form of a decided displeasure, while every expression of will springing from the sentiment of love to our neighbor pleases at once.

The judgment as to the worthiness or unworthiness of a will is here an original one. In little children this judgment does not yet appear, because they do not know the things that are *per se* base or praiseworthy. But they learn to know them in time through observation of good and bad actions, and as soon as they have risen above absolute crudeness with respect to ethical deeds, when there is an incipient moral attitude, they pass moral judgments, providing they are not permanently controlled by emotions and desires that do not permit quiet contemplation. Upon this judgment, original and free from desire, ethics must be based. The ethical judgment appears next in the form of feeling, or to express it more exactly, of a total-impression; one "feels" the laudable and the base. The feeling is, however, often indefinite, and easily leads astray. Therefore the absolute valuation must rise into a logically formed and clearly expressed judgment. Culture and general theory of life may here be of great influence, especially also the application of knowledge of the good to human (social) relations.

The moral judgment is developed psychologically in the same manner as the esthetic (the taste): the former through observation of actions (as the manifestations of the will), the latter through observation of hues, colors, etc. This circumstance points to a relation of the two spheres, and

Herbart designates ethics and esthetics (in the more narrow sense) as the esthetic sciences. The term *Esthetics* applies in Herbart's sense as well to the science of the ethically beautiful as to that of the beautiful in art, and their opposites. The science of the beautiful in art deals with form and with the relations of tones, lines, colors, etc.; it is peculiar to ethics to submit to the judgment the *relations of the will*. Just as a single line of color cannot by itself be judged as to beauty or its opposite, so also an individual will is not judged for itself, but only according to the *relation* in which it stands to another will.

A will-relation involves at least two wills. These two wills may (a) be included in the same person, or (b) belong to two different persons. In the former case we distinguish two, in the latter three, additional kinds of will-relations, so that there result *five fundamental relations* and therefore *five moral ideas*.

But are there really two wills in one person? We may recall here, perhaps, the story of the Indian who borrowed some tobacco of his neighbor and found in it a gold coin. There arose within him a conflict between "two men," whether he should return the money or keep it. "It is a fact of inner experience, observed for thousands of years, that we really find in one person two wills, of which the one commands, and the other obeys or disobeys" (Ziller). These wills often enter into conflict, as the one often promises us enjoyment and thus lures us on, while the other warns us and utters commands or prohibitions. The Apostle Paul also describes the conflict of these wills within us, when he says: "For the flesh lusteth against the spirit and the spirit lusteth against the flesh: and these are contrary the one to the other." In the older Greek story of Hercules at the Cross-Roads this soul conflict is embellished in poetic form.

## FIRST IDEA.

The picture of an internal conflict is drawn for us in a graphic manner by Gustavus Schwab in the poem "Johannes Kant."

The doctor of theology at Krakau on a journey to his Silesian home is surprised by highwaymen. Anticipating the demand of the robbers, he offers them his well-filled purse and various valuables.

"Gav'st thou thine all?" they bellowing say,  
"Bear'st secretly nought in boot or in belt?"  
Death-terror swears from the Doctor: "Nay."

When he is alone, he examines his garment and finds well secreted his golden savings. A joyous feeling comes over him.

With all the gold his home is safely reached,  
He may by God's great goodness rest from fright,—  
When sudden still he stopped, for in him cried  
With clam'rous din the dread Imperative:—  
"Lie not, lie not, Kant. Yet thou hast lied."

At once he returns, seeks out the robbers and offers them the concealed sum.

Since none will take, he penitently cried:  
"Oh, take, this have I ill denied!"

The law-giving will here made a demand, and the other will submitted to it, obeyed; it liberated itself from the bondage of the material advantage. Pilate acted in a totally different manner; he did not heed the inner command, but condemned Christ; his will was not free to follow the law-giving will, but was bound through fear of man. When a will obeys the law-giving will (discernment), it receives praise; when it disobeys, it suffers censure. The idea of the coincidence of our will with our law-giving will (discernment)

is called the idea of the INNER FREEDOM. Our moral (inner) freedom does not consist in the fact that we can also do the evil, but in the fact that we surrender unconditionally to the law-giving will. By inner freedom we do not mean self-determination of the will, but that independence of the same from sensual desires which is connected with the dependence upon moral motives. The will becomes free when it breaks loose from the yoke of the desires, in order henceforth to surrender to the good and its service.

Obedient felt I e'er my soul to be  
Most beautifully free. — GOETHE, *Iphigenia*.

The Conviction to which one ought to submit in obedience must also be a worthy one; it must not be made a motive through any haphazard concept-group, or through any principle, purpose or plan, which rests upon a mere opinion, wish or desire. We are truly free, not when we merely will, but only when we will the right. In this sense we are to understand the words of Christ: "The truth shall make you free." But what is the form of the judgment, when a person has not yet become acquainted with the ideal? In that case there is absolute barbarity of mind, utter absence of morality; such a person lacks a criterion by which to measure his willing and his acting, he has no prototype which he should imitate. So it is in one period of childhood; such is largely the condition of tribes of a low degree of culture; so it is occasionally among us in the case of adults whose education has been totally neglected, or purposely misdirected. Such persons stand beneath the line of moral valuation, or to use a winged word, they are beneath all criticism. But how does this comport with childish innocence? Innocence does not belong to moral freedom, since the latter demands discernment. The child without judgment; but as he yields to the external

the parent), he learns also to yield to the law-giving will, as soon as this makes its appearance. Childish innocence is therefore only a point of departure from which the human being can arrive at moral liberty when his judgment appears, and to which he actually attains if he follows his discernment.

The ideal of the will can also be expressed by means of a law. He who assumes the ethical standpoint obeys this law, not merely because it is a law which may not be violated (such conduct would be only conformable to law, legal; but legality is also only a first step to inner freedom), but because obedience to the law is good in itself.

#### SECOND IDEA.

The harmony of the will with the discernment pleases. Reuben, when he willed to save Joseph, submitted to the discernment, which his brethren refused to do; therefore we must praise the former and blame the latter. Reuben acted in accordance with inner freedom, and yet there rests a stain upon him. He had not the necessary force of will to oppose his brethren openly; this want of energy of will we must censure. Quite differently appears the Apostle Paul; he not only brings his will into conformity with his discernment that to the heathen the Gospel must be preached, but he manifests an extremely energetic, never-tiring will. He is "ever on the passage," he has only the one thought, that the word should run, and the longer it does so the more grows in him the will to press farther and ever farther forward to those who still sit in darkness. He climbs the snowy heights of Taurus, when drawn into the valleys of Lycaonia; he wanders as far as the Ægean Sea, when he hears in a vision the Macedonian call: "Come over and help us." When he comes to Corinth, lo, ships are sailing for Italy! And at once he writes to Rome, how

he is at all times praying that it might sometime be possible for him, with God's help, to go to the Romans. From beyond the sea voices are calling to him, "Come," and in the hours of solitude his thoughts are occupied with "those that have not yet heard." This "on, on," is the real motto of his life. But what is in this case the nature of the will-relation? The obeying or aspiring will seeks to reach the law-giving will in point of strength. If we indicate the strength of the law-giving will by 5, that of the aspiring will by 1, then is the latter weaker than the former; but when it reaches the steps 2, 3, 4 and 5, its strength is finally equal to that of the law-giving will. Now the law-giving will moves higher up to step 6, and the aspiring will increases in strength by 1, etc. As the law-giving will moves ever upward, the aspiring will can constantly increase in strength, and as the upward movement of the growth of the law-giving will has no end, so, too, there is no limit of strength for the obeying will. The will seeks to attain complete strength, or to become perfect. So it was with Paul. He acted in accordance with the idea of perfection, or efficiency of will.

This perfection of which we speak in ethics is not to be confused with perfection in the popular sense, as the sum total of all the completed virtues.

These two ideas of Perfection and of Inner Freedom do not necessarily by themselves alone lead to moral volition. The idea of Inner Freedom demands coincidence of volition with judgment. But when the judgment errs in that which it regards as right and good, then will also the will that harmonizes with it take a false course; thus we see, for example, many barbarous tribes offering to their idols human sacrifices, because they regard this as something praiseworthy. The strong will, too, may be immoral. Both have reference to the form of moral action  
*be called formal ideas.*

We must therefore seek for additional ethical ideas, and thus we meet with the notion of volitional relations between two different persons. One will A can direct itself toward another will B, in order to imitate and strive to equal it in strength. But this is merely repeating again the discussion according to the ideas of Inner Freedom and of Perfection, only with this difference, that now the wills are distributed between two persons, whereas in the former case they were included in the same person. We have in the following case a really new will-relation :

#### THIRD IDEA.

A wealthy man knows of the struggle of an indigent young man to get an education; he desires that the latter should secure his aim; every successful examination fills him with joy, every less satisfactory one, with anxiety; he assists him pecuniarily in order to bring him nearer his object, and rejoices at last, when he attains it. Why does the rich man entertain such a disposition toward his protégé? Not because it might bring him profit. If it really brings him profit (the reputation of benevolence), it is a matter of indifference with respect to his disposition; the latter would exist, even if there were no advantage; it would not disappear even though his benevolent action were represented as the result of ambition. A case of pure, disinterested surrender to the good of others we find especially in Pestalozzi. How eager he was for the welfare of neglected childhood is well known. "In order to help those oppressed and in trouble, no sacrifice was too great for him, nothing too costly, for he sought not his own advantage. Often he shared with the poor his last florin; gave a beggar even the silver buckles off his shoes and fastened his own together with straw; he went to Neufchâtel to call on the

King of Prussia, in order to win him for his ideas, though he was very ill and fainted repeatedly on the way." He was, as we read on his tomb, "Everything for others, for himself nothing." This disinterested, unselfish surrender to a foreign will, with the aim to promote it, pleases unconditionally. But the case may also be found reversed. A pupil, *e.g.*, knows that his neighbor is striving to win the approval of his teacher, but he begrudges him the attainment of this aim. Every good answer excites envy within him, every faulty answer, joy; he beguiles him into neglect of study, gives him false information and rejoices the more, the greater the dissatisfaction of the teacher. Such a disposition, which seeks to hinder a foreign will in the attainment of its aim, or at least rejoices in case of non-success, displeases unconditionally. Malevolence appears in its ugliest form where a person feels displeasure at the attainment of an aim by another, where the former himself neither can, nor desires to, reach it; where he opposes the attainment, not because he would attain it himself, but only in order that the other may not secure it. He who gives himself up to a foreign will unselfishly, disinterestedly, puts himself under the Idea of Benevolence, or Good Will. Upon this depends chiefly what we are accustomed to understand by beauty of soul. This appears in its purest form in Christianity. "Love one another, as Christ has loved you." "Love your enemies (disposition), bless them that curse you (expression of disposition by words, wishes), do good to them that hate you" (deed).

Of great importance for the development of Benevolence is the culture of sympathy, which manifests itself in two forms, sympathy with suffering and sympathy with joy. It is not less important for Benevolence than childish Innocence for Inner Freedom. Sympathy is developed only in the more narrow circles, and thus do these become a school

of Benevolence. In the family, in the home, in social intercourse, etc., Benevolence must be learned, and thence it may be extended to wider circles. Because sympathy is so important for the dawning life and the success of Benevolence, we must cultivate tender feelings in children, even toward objects without soul or will, as plants and animals. Plants may not carelessly be allowed to wither or be recklessly destroyed; animals may not be needlessly tortured, notwithstanding the fact, that they must be content to serve the necessary requirements of man. In the interests of Benevolence must children early learn carefully to tend and to nourish both plants and animals. Whoever is in this respect neglected and hence indifferent will prove also slack and indifferent where Benevolence is concerned.

#### FOURTH IDEA.

When two wills come forth from themselves, they direct their attention to the external world, which is their common sphere of action. Every human being has needs, which he satisfies with the objects of the external world, and it may happen that two wills casually direct themselves toward the same object, desiring it at the same time.

The shepherds of Abraham and of Lot dwelt peaceably together so long as the pasture was sufficient for their flocks. When this was no longer the case, the wills of both parties directed themselves to the same pastures, and there resulted a strife. Abraham, by means of his power, could have dislodged Lot, but the strife would not have been removed by this procedure, for Lot would have continued to oppose secretly. This strife of wills displeases. It was necessary therefore to have conference and agreement, in order that the strife might cease. Abraham allowed Lot to choose a definite district, to which in the

future he was to confine himself, but in which he was also not to be molested. The content of the agreement therefore was to be established as a norm or rule for the future conduct of both wills. If the one or the other had failed to respect the established norm, if the one or the other had driven his flocks beyond the established limits, the strife would have broken out afresh. We are not informed that this did take place: each confined himself within the established limits, each submitted to the *Idea of Rights*.

"Right (legal) is the concordance of several wills, regarded as a rule for the prevention of strife" (Herbart).

Strife and malevolence differ from each other in the following particulars: In malevolence one will seek to do harm to another; it hates, injures and harms without any cause; in strife one will would perhaps not concern itself about the other, were it not for the sake of some object, in the possession of which the other endeavors to thwart him.

#### FIFTH IDEA.

When Christ had healed the ten lepers, one returned in order to express his gratitude for the benefit received, but the other nine accepted the benefit without showing themselves appreciative. The former excites our approval, the latter our censure. The will of Christ had transferred upon the will of the leper a good; this good returned again in the form of *thanks* upon the originator. The will of Christ had transferred a good also upon the wills of the others, but as this will did not return in the form of gratitude upon the originator, there was created an incongruence. Upon one side there was produced an excess of good. If one will transfers upon another will an *ill* (harms another, *e.g.*, the honor of another), our displeasure is also aroused, and this displeasure does not vanish until an excess of ill has returned

upon the originator (until he has been punished). When one person consciously renders to another a good or an ill, it is fitting that the good or ill should in like measure return upon the will that has caused the incongruence. This will shall be *rewarded* or *punished*; thus demands the *Idea of Justice*, or Equity.

While, as already remarked, the ideas of Inner Freedom and of Perfection are merely formal, we must assign to the ideas of Benevolence, of Right and of Justice the attribute "Substantial." To be more exact: There are three universal virtues: *Love*, the sense of *Right* and the sense of *Justice*. The *Idea of Perfection* indicates the measure of strength of each of the three dispositions, or virtues. The Idea of Inner Freedom is altogether the first presupposition of these virtues.

The five elementary ideas in their application to larger combinations and associations produce the derived ideas. Jurisprudence develops from the idea of the ethically right civil law; from the idea of Justice, criminal law. In accordance with the idea of Benevolence every member of any considerable community must, for the welfare of all members of the same, do his utmost to contribute to the production and proper administration of property (system of economics). The idea of Perfection demands, that every one contribute his share to the advancement of general culture (system of civilization). Inner Freedom demands of every member of society that he subordinate his personal will to the total will. If the latter is governed by moral ideas, then is this demand a thoroughly moral one and leads to the idea of *animated society*.

In the application of these ideas to human life there arises another series of ethical notions: virtue, duty, ethical good. Virtue is the perfect concordance of the character with all the ethical ideas. What is further designated by the word

*virtue*, consists only of manifestations of this one virtue. If a will is not yet of itself in accord with the ethical ideas, but must first be bound to them, there arise from this relation the notions of duty and of law. For an absolutely holy will there is neither law nor duty. The ethical good is the perfected organism of society, animated by these ideas, and called in the Bible: "The Kingdom of Heaven."

The ethical ideas comprise the entire field of that which man ought to do and to leave undone. All the virtues and vices are illumined by them. Let us glance, for example, at *lying* in the light of the practical ideas. Lying is a transgression in the first place against the idea of Inner Freedom, which demands concord of disposition, on the one hand, and word and deed on the other; the liar thinks otherwise than he speaks. Lying displeases no less from the standpoint of the idea of Perfection, for most men lie because they have not courage enough, not strength of will enough, to tell the truth and to stand by the consequences. Lying is further not in harmony with the idea of Benevolence; for to lie to another, to lead him astray, is evidence of lack of love, maliciousness, malevolence. Lying is a very fruitful source of strife, for in lying there is a merely illusory yielding. The liar appears as if he were ready to yield to the truth, but presently he withdraws this yielding secretly and offers instead untruth. This withdrawing of what the other rightly expected, viz., the truth, becomes, as soon as he discovers it, the occasion of strife. In lying, there is also a lack of equity; for the confidence with which one is met ought to be repaid by a corresponding counter-gift, viz., by truthfulness; not to repay the received good (confidence) by an ill (deception). The social (derived) ideas are also perceptibly affected by the falsehood.

It has been largely asserted that ethics is not an independent science at all; that it is rooted and grounded in the

science of religion. This view must be most emphatically denied. The relation between religion and morality, however, is different. One cannot fail to recognize that religion has the greatest significance for the germination and growth of moral character. He who does right only from a consideration of God and the future life, is still very remote from true morality, it is true; but he accustoms himself to resist the impulses of the moment, to reflect and to give heed to ideal demands; he can in time reach a point where he obeys the demands out of respect for their worthiness alone. It may in this connection be very well that in reality he already obeys the nobler motives, while he still believes he is obeying the commands of an almighty God. Just as for the child obedience, resting on the authority of the teacher and the child's love for him, is a necessary preliminary step toward genuine morality, so, too, the human race as a whole is led to true morality only as the commands of the ideas are regarded as the commands of a law-giver at first feared beyond everything, later also loved beyond everything. With occasional exceptions the way to morality passes only through legality.

But even though man has reached a higher stage of moral development, he may not dispense with the support of religion. He ought to will the good, but a volition becomes possible only when success hovers in sight; without the hypothesis of success, there is no energetic, resolute acting possible; fear of failure paralyzes energy. Now, there are often circumstances in the presence of which we should despair of all success of our good endeavor. And yet we ought to be energetic! This is possible only in case we believe in the co-operation of the highest Being, whose purposes and designs are so arranged that ultimately the good within us as in society will dominate. Without religion, without any fixed faith in Providence, were it only the

indefinite faith in a world government, no self-conscious morality is conceivable. Other points in which religion is of significance for morality, as, for instance, redemption, may be omitted at this place.

## QUERIES.

1. What arguments may be adduced for and against a distinction between theoretical and practical philosophy?
2. What is the significance, in a religious point of view, of regarding the *will alone* as object of moral valuation?
3. Is not taste too fluctuating to permit of founding upon it a system of scientific ethics?
4. Do the moral ideas appear as controlling powers in the life of barbaric tribes?
5. With what arguments can the independence of the idea of Inner Freedom be assailed or established?
6. Do the five ethical ideas really comprise all that man ought to do and to leave undone?
7. What is the relation between religion and morality, between virtue and religiousness?
8. How does the New Testament doctrine of *reward* comport with the doctrine of *disinterested valuation*?
9. Why is a moral aim on the basis of Pantheism logically impossible?

## PART III.

### PEDAGOGICAL APPLICATION.

THE will, which constitutes the worth or worthlessness of a human being, proceeds from the realm of ideas. It results from the concept life and is influenced by it. An important task of education therefore is the care of the mental, or concept, life. Ideas arise in the pupil even without any purposed influence of the teacher. With a thousand charms the sensuous world pours in upon the child. He learns to know household implements, objects of field and garden, wind and weather, cold and heat; he sees the operations of the farmer, of the mechanic, of the merchant. To all these things he stands in the relation of an observer; they are objects of his experience furnishing him with knowledge.

But the child plays not only the *rôle* of a mere observer; he enters into a definite relation with his brothers and sisters, his playmates; he is sad with them, rejoices with them; he also places himself in a similar relation to inanimate beings, by imagining them to be animate; the little girl weeps over the sick doll, and comforts the broken flower. We say the child cultivates intercourse with animate beings, real or imaginary. From social intercourse, there arises sympathy with other, especially human, beings. From sympathy, from interest, are evolved dispositions toward men.

Experience and social intercourse, these two great school-masters of the human race, show themselves effective even

without the teacher ; they beget knowledge and disposition. Is not in this respect the teacher superfluous ? We answer this question in the first place with regard to experience. The child of a great city acquires experiences almost exclusively in this city ; he seldom visits the country. The range of his knowledge must therefore be very narrow when he is restricted to the experience that offers itself of its own accord. But would that children had even as much experience as they have opportunity of acquiring ! They have eyes and see not, they have ears and hear not. Of three hundred six-year-old primary pupils in the country, 8 per cent had seen no grain field, 14 per cent no pond, 30 per cent no lark, 43 per cent no oak, 14 per cent had not been in the woods, 18 per cent had not been near a brook or a river, 26 per cent had not been upon any mountain, 37 per cent could not tell how bread is made from grain. How slowly would experience advance, if education did not come to its assistance ! How fragmentary and crude would be the knowledge acquired without the mediation of education ! There would be error, fanaticism and all kinds of extravagances to fear ; therefore education must direct experience, guide it into the right channel, complete it and shorten its course.

But social intercourse must not fall under the dominion of chance. What can be the future of a child that perhaps does not know his father or is a daily witness of most repulsive and disagreeable family scenes, and spends the greater part of his childhood upon the street ! In such a case dispositions toward men are also formed, alas, not always desirable ones. How scant are often the results of intercourse with others even under better circumstances ! How small and narrow the conditions of ordinary life in which man grows up ! Therefore family and social intercourse also requires the aid of education.

Experience and intercourse are not to be displaced, but supplemented by education. "Who would miss," says Herbart, "experience and intercourse in education? It is as if one were to dispense with the sun and be content with candle-light."

How does education act as a complement to experience? The teacher takes walks, makes excursions, journeys with his pupils, visits museums and collections of natural history; he experiments, shows them copies (pictures, models) of objects and gives them a picture of that which cannot immediately be observed through description and graphic story. Instruction, tradition, presentation, have the advantage of completeness and intelligibility, but this method lacks sensuous force; observation possesses the latter, but it is more or less fragmentary and confused. Therefore it is necessary to vivify instruction by means of a sensuous vigor of observation, and, on the other hand, to make observation an organic whole of knowledge by means of supplementing, systematizing instruction.

How does education supplement intercourse? Intercourse is cultivated with animate beings, or objects imagined as animate, especially with human beings. The teacher brings the child into relation with his fellow-pupils and with adults. But this intercourse is on the one hand too narrow, on the other hand it does not always awaken the interest sustained by the true spirit of charity. We must therefore add another kind of intercourse, namely, with men that live remote from him, or have lived before him, or exist only in poetry. Is such an intercourse possible? Intercourse does not cling to the clod, but upon the wings of imagination it hastens to meet with absent, historic or poetic characters. In a garret, secluded from all the world, with book in hand, we can move in great and select society. The student Luther cultivated the society of Samuel, who

said : Speak, Lord, for thy servant heareth. Bogumil Goltz tells in his "Buch der Kindheit" about his intercourse with Robinson Crusoe. The boy forms intimate friendships with the heroes of old. His fist clinches when he sees his friend suffer under the oppression of an untoward fate, and again he rejoices when he sees him come forth crowned from all suffering endured.

That part of education which supplements intercourse and experience is called instruction. If it must be admitted on the one hand that immediate experience and immediate intercourse act more powerfully than such an experience and such an intercourse as instruction usually finds it possible to supply, it cannot, on the other hand, be denied, how much more pleasing places are often pictured in descriptions and drawings, than they are in reality; how much more satisfying and inspiring intercourse with the world's historic men is than that with our neighbors; how much richer of comprehension the concept is than the observation, how indispensable for practice the contrast is between the real and that which ought to be. Since it is the purpose of instruction to supplement experience and intercourse, it must be regarded as a part of education; its position is *beside* not *within* education. We must agree with Herbart when he says: "I confess to have no conception of education without instruction, just as, on the other hand, I recognize no instruction which does not morally educate." A distinction is, however, to be made between the customary view of instruction as a means of education and that of Herbart and his school. "Of morally educative instruction," says the former in his Letters, "have I first begun to speak, I believe. You will recollect that we emphasized that very thing most; instruction is too much regarded as of only secondary importance; it is conceded that its effect is most enduring, because acquired knowledge remains, while customs and manners

change. The expression *educative instruction* was afterwards taken out of my mouth and used much against my own intention. According to the conventional view, the educative effect of instruction consists in the fact, that it stirs up the powers dwelling in the pupil, strengthens them by practice and directs them. In this sense of course every kind of instruction is a kind of education, nor can it be denied that the success of instruction is conditioned upon the vividness, heartiness and conscientiousness of the instructor." According to Herbart, the principal care of the teacher, in addition to what is expected in the way of conventional practice, is to see that the content of thought is correctly built up from the material at hand, and closely connected even in its remotest parts, in order that the formation of character shall appear to be properly regarded.

Character forming is will forming. The will springs from the thought-complex, which instruction has to form. The educative value of instruction then consists in the influence which it shows with respect to the will. Not every kind of instruction produces a thought-complex from which energetic volition results. Frederick the Great had enjoyed a very extensive religious education, yet he manifested but slight religious endeavor. How came this? The perverted method of instruction created no interest. Interest, therefore, must be the product of education. The word *interest* is used in a twofold sense. It is demanded of instruction that it be interesting, in order that the pupil may the more easily acquire the facts of knowledge. In this view the object is the appropriation of the facts of knowledge, the means, the exciting of an interest for this material. This is *receptive interest*. But this receptive interest does not yet assure us that out of the mediated thought-complex will spring an energetic volition; the facts of knowledge, after they have been received, may yet remain dead and unutil-

ized. We must therefore cast about for the second kind of interest, the kind that Herbart emphasized. An illustration may serve to elucidate its nature. A boy hears with special attention the teacher's stories of navigators. He likes to think of them also out of school hours and would like to know more of them. For this purpose he asks the teacher for books and is all attention when he hears any remarks touching his favorite theme. The boy has an *investigating* interest. This leads him to the desire to become a seaman, and afterward, when this object seems to him to become attainable, a volition will easily be developed from this desire. The investigating interest is, as it were, the root of the desire and of the volition. This view of interest is peculiar to the Herbartian philosophy, and in the German language has no adequate expression.<sup>1</sup> The word expresses in general that kind of intellectual activity which education should induce, not being content with mere knowing.

Knowledge is regarded as a supply that might be absent without in any way changing the person. He, on the contrary, who holds fast to acquired knowledge and seeks to extend it is interested in it. Though interest accompanies instruction to a degree, it is nevertheless essentially a consequence of instruction. The interest that education has to generate, and that must, up to a certain degree, accompany instruction, must be immediate, *i.e.*, the pupil must not learn merely for the sake of securing first rank, a good grade, a brilliant position in life. Immediate interest works from pure, disinterested devotion to the thing, and finds the reward in itself; it knows nothing of the motives of selfish

<sup>1</sup> And we may add, the same difficulty presents itself in English; the expressions, to be partial to, to have a fancy for, to have a taste for, to take an interest in, approach it somewhat in meaning, but cannot completely express it.—Tr.

speculation, of fear, of ambition. For this reason the teacher must, during instruction, avoid everything that might favor the production of mediate, and hinder the production of immediate interest.

But immediate interest must be defined more closely. Let us assume that a person has developed a lively interest in commercial pursuits. He must then be on his guard, lest he become biased in the pursuit of this one interest; lest his entire thought-complex revolve exclusively about his business; lest he forget his moral and religious duties; lest he neglect even the education of his children—all for the sake of his business. Such a biased, limited interest instruction must seek to prevent by exciting a many-sided interest, which does the one thing and leaves not the other undone. In the *many-sidedness* of interest the pupil is by-and-by to find moral anchorage and protection against that bondage which springs from the desires and passions; it shall guard him against all those errors that are the consequences of idleness; it shall arm him against the vicissitudes of fortune; it shall reconcile him with life again, even when a sad fate has robbed him of his dearest; it shall let him find a new vocation, when he has been crowded out of the old one; it shall elevate him to that point of view from which all earthly possessions and all earthly endeavor appear as something incidental, by which our real self is not touched, and above which the moral character stands sustained and free.

Many-sided interest is divided into the interest of *knowledge* and the interest of *sympathy*.

Knowledge derived from the sphere of experience may direct itself first toward the much, the many-colored and the manifold, and the mind may take pleasure in the variety and novelty of impressions. The excitation and eager continuance of endeavor in this direction is called *empirical* interest.

The element of the obscure and enigmatical, as it is met in the facts of history, urges from a mere observing, as it predominates in the empirical interest, to reflection concerning causal connections; in order to understand facts and events one seeks to become clear concerning their causes and conditions. An effort of this kind presupposes a mental activity to which Herbart gave the distinguishing name of *speculative interest*. He who at the sight of the starry heavens rejoices over the millions of stars in their various constellations, manifests an empirical interest; he who ponders over the conditions of their coming into being has a speculative interest.

Observation is reinforced by the taste. The interest that has reference neither to quantity nor to the causal connection, but to the relations of what is observed, whether this lie in the world of sense or in the thought world, is called *esthetic interest*. When reference is had to the esthetic interest, the sense of the beautiful in nature, in art and in morals is meant.

In matters of sympathy from the sphere of intercourse, the feelings of others are imitated within ourselves. There arises gradually the diversity of feeling, in which the good and the ill, the joy and the grief of others, are repeated in ourselves. We then speak of the *sympathetic interest*. If to this feeling is joined the understanding of the larger relations of society, if one participates in that which appears to many a good or an ill, there arises the public spirit for the prosperity of human relations, which Herbart has called, in brief, *social interest*. When, finally, sympathy follows the trend of history and the fortunes of the human race *in toto*, when the reason as well as the sensibility perceives that the control of the history of the human race withdraws itself from all human forces, and that for this reason also the history of every individual lies not in his own power—then

do fear and hope join with sympathy in the heart. This is *religious interest*.

A yet closer definition of interest is necessary. Just as one-sidedness is to be avoided, so must care be exercised that the various phases of interest receive a uniform development, so that one interest shall not overbalance another, and, as it were, a one-sidedness arise in the midst of variety. Many-sided interest must be well-balanced, symmetrical.

Interest is the lamp by which Herbart once for all has brought the clearness of day into the dark and labyrinthine passages of didactics; it is the magic word which alone gives to instruction the power to evoke the spirit of youth, and to render it obedient to the call of the master; it is the long lever-arm of education, which, easily and joyfully moved by the teacher, can alone bring the youthful volition into the desired motion and direction.

How does interest arise? An exhaustive answer to this question is not possible in this place; we must therefore be content with a few suggestions. We have already seen that the fusion of new concepts with older ones, when it takes place with ease and certainty, produces a pleasurable feeling, by means of which is induced a desire to repeat the same inner activity, a wish to continue to busy oneself with the same object. It will be seen from this that interest is most intimately connected with apperception. The ease, the pleasure and the wish or need convert the activity of apperception coming from within, into what we have called *interest*. He who watches over apperception cares also for interest. Therefore he who would arouse interest, must so act that (a) the new may find within the pupil apperceiving concept-groups; and that (b) the process of apperception may take place with ease and respond to an inner need.

Every teacher knows that there are materials remote from the children, which in general exceed their receptive

powers. Materials of this kind find too few apperceiving concept-groups, are therefore unable to arouse any interest, and hence are to be excluded from instruction in the school-room. The teacher cannot use all material; he must select not only the useful, but from all that is fit for use, the fittest, the best.

Yet it is not enough merely to make a proper selection. The Declaration of Independence, for instance, is without doubt useful for the school-room in general, but not for children of the first school year, because at this stage the necessary apperceiving concepts are not yet in existence. Hence it appears, that to the selection of subject-matter must be added its arrangement (distribution over the school period).

But even the best of material, notwithstanding the best arrangement, leaves the pupil cold, void of interest, when the methodical (teaching) treatment is wrong.

First, then, we must speak of the selection of subject-matter.

To teaching belongs the task of supplementing experience and intercourse. From experience there comes a knowledge of external nature (the world); from intercourse arise dispositions toward men. To supplement experience, we require the materials of natural science (in the widest sense).<sup>1</sup> To supplement intercourse, we require instruction that trains

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<sup>1</sup> To the real or imagined intercourse with men must be added also the *intercourse with God*, whom even the Bible represents as the friend of men.—ZILLER. And Herbart: Education is to supplement experience and intercourse. There exists nothing except nature, man and the link which connects these two, Providence. When education has expanded experience into acquaintance with nature, and has elevated intercourse into an appropriation of a universal interest in humanity, *when it has united both with religion*, then, and not till then, has it fulfilled its pedagogical purpose. Dörfeld distinguishes three principal trends of knowledge: Nature, human life (in the past and in the *present*) and religion.

disposition (culture studies). Disposition has reference chiefly to men (sometimes also in a general way to everything animate or regarded as animate). The sphere of the human belongs to history and literature, as the story of real or merely imagined events. Natural science and history (both taken in their widest sense) indicate therefore the two main trends from which the materials of instruction are to be derived. Since the moral worth of man lies in his disposition, it follows that culture (historical) study deserves the preponderance. If only to counteract the influence of egotism, human relations must be made the central study in every school which assumes the culture of the whole man.

Let us therefore next see what materials are to be chosen from the field of history.

Only such historical matter may be admitted as, with proper treatment, *must* awaken interest in every pupil. But the psychological prerequisite for all concepts that are to enter into the mind as interesting, is similarity, or relationship with pre-existing concepts, the condition of being expected by the latter; in short, the most careful regard to every individuality, and to the ever-changing stage of apperception in each case. The material must therefore be so chosen that it may be as much as possible in accordance with the stages of apperception. (But since (according to Ziller) every human being as an individual must pass through the same stages of development as the human race *in toto*, it follows that the best materials will be those that represent the principal stages of development of the human race.) Of such stages (called culture-historical epochs) Ziller recognized eight and prescribes for them the following materials: —

1. The Epic Fairy Tale.
2. The Story of Robinson Crusoe.

3. The History of the Patriarchs.
4. The Period of Judges in Israel.
5. The Period of Kings in Israel.
6. The Life of Jesus.
7. The Acts of the Apostles.
8. The History of the Reformation.

With this choice of materials is also given their sequence. The excellence of these materials can only be shown after we have first spoken of the second main trend of instruction, natural science.

Let it be remembered that education is in the service of character forming, and that the formation of character can appear assured only where a unified thought-complex is produced; one which coheres intimately in all its parts. But if a unified thought-complex is to be produced, we must not have, beside the historical instruction, entirely independent instruction in natural science; the formation of two separate thought-circles, separated from each other by a gulf, must not be permitted. If we would obviate this evil, we have no other way than to bring these two chief groups of material into the closest possible relation to each other; whence it follows that one group of material must adapt itself more or less to the other. It has already been stated above, that the dominating position belongs to the historical (culture) material. The natural science matter must therefore adapt itself to the former. Whence it follows, that the choice and sequence of the latter are also largely determined by the culture study.<sup>1</sup>

Culture study and natural science study have the common

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<sup>1</sup> The Stoy school of Herbartians reject Ziller's subordination of science to culture studies, seeking rather the co-ordination of the two groups. For an exposition of this, see the Editor's *Herbart and the Herbartians*. New York: Charles Scribner's Sons, 1884. — Ed.

name of content study (*Sachunterricht*). Objects are named by means of language. If the pupil is to manipulate language, that is, learn to speak, read and write, language must be made a special subject for study. The teaching of language also has to do with objects. In order to secure unity of the thought-complex the study of language must also be brought into relation with the culture studies. In singing, a like union must take place. In drawing, objects are represented in outline; arithmetic has to do with the quantity and number of objects. Therefore these branches must also be brought into relation with culture studies, if we would secure an intimate connection of ideas. Culture study is therefore the center of education in general. Inasmuch as, with Ziller, character-forming instruction makes use chiefly of those materials which represent the culture-historical stages above named, these form the central material for the entire education of youth.

With reference to this Ziller says: "For every grade of instruction and every kind of school there must be established a unity of thought. On account of the moral-religious purpose of education, we must provide a character-forming material, designed to serve as a nucleus, around which everything else may be ranged peripherically and from which connecting threads may extend in all directions, whereby all parts of the child's thought circle may be constantly unified and held together. In this manner education ceases to be an aggregate of separate branches of instruction, which otherwise is unavoidable. The selection and progress of the central studies are to be so adjusted that they represent partly the growth and development of the child's mind, and especially the grades of apperception which must succeed one another according to psychological laws; partly also his progress corresponding to the development of the individual in the great whole in the evolution of the history

of the human race, so far as this is known to us through *classical*<sup>1</sup> literature accessible to youth, in all its principal periods, demonstrably important for our present stage of culture.

These materials, couched in classical form, have already been named. Let us now proceed to consider them in detail.

In the above-mentioned series it is at once apparent that the first two grades are not taken from religious material, although in general the aim is evident to make religious instruction the nucleus of the entire education of youth. In the first two school years the life of Jesus is made interesting to the little ones, not so much as a subject of instruction, as an entertaining narrative in connection with the church feasts in special children's services. Ziller and his adherents have come to the conclusion, that, aside from the culture-historical epochs, a fruitful treatment of Bible history during the first two years is not practicable on account of difficulties which lie chiefly in the remote time, with its social forms, institutions, manners, customs, laws, etc., and in the strange arena of this history, without the knowledge of which history hangs in the air, a picture consisting of figures without any background. The thought-complex of the pupil's home from which his imagination must borrow colors and typical pictures for the distant and the strange, for the remote and the past, must first be sufficiently fortified, before he may be conducted to the earliest development of culture, in a country so remarkable as Canaan. The difficulties of Bible language might, it is true, be removed by a simplification of the text after the manner of Wiedemann, but to such a profanation of Herbart and Ziller cannot consent; they are of

<sup>1</sup> Periods which no master has described, whose spirit breathes, are of little value to education. — HERBART.

that the Bible character of those stories must be retained. All their deliberations lead to this result: "Our Bible stories cannot become fully and completely effective in the mind of the child, until the soil has been properly prepared for them during the first two years. We therefore defer the treatment of Bible stories as a study until the third year, when we hope to reap more satisfactory results than have hitherto been secured."

The first central material therefore does not belong to Bible history, nor to any history proper, but is historic only in the sense that it contains stories that treat of beings that are animate or conceived to be animate. Besides, it does not consist of so-called *moral stories*, which are for the most part so asthmatic, that they are obliged to stop every few moments to rest upon commonplace moralizing.

The central material for the first school year consists of a selection of Grimm's Fairy Tales. These best meet the requirements that must be made of a genuine juvenile story (for the above-mentioned grade). They are truly child-like, that is, simple without being trivial and at the same time full of imagination; they are morally formative in the sense that they contain characters and relations, which, simple and full of life, challenge the ethical judgment to approve or disapprove; they are instructive, for they offer occasions for appropriate discussions concerning nature and society; they are of enduring value; they invite to a constant return; they form a unit and thus make a deep impression, and they are the sources of a possible many-sided interest.

Professor Ziller, in the first "Jahrbuch Des Vereins für Wissenschaftliche Pädagogik," has laid down the value of the fairy-tale material in a manner which, in point of thoroughness, far excels all attempts that have been hitherto made. Following is a brief synopsis of his chief points:—

Fairy tales are adapted, as is nothing else, to the individuality of the child, and especially to the predominating faculty of imagination, which is by all means to be cultivated, since in this are rooted all the higher strivings. For this reason the concept matter must be poetic. Only poetic thought material allows the imagination free play, especially the fairy-tale material, which contains no names of persons or places, whose events are defined precisely neither as to space nor time. The child who becomes absorbed in fairy tales remains longer a child; he contemplates them with delight; he believes in them; for he himself rises, as do the fairy tales, above the conditions of reality; he vivifies the lifeless; he animates the soulless; he associates with all the world as with his equals, and loses himself in adventurous impossibilities. Thus to favor the child-like views of things by means of, to him, congenial fairy tales cannot react harmfully upon him, because the fairy tale contains, besides that subjective conception which deviates from the nature of things, also an abundance of objective, rational, not only esthetic but also ethical, notions and principles, which lead far beyond the sphere of imagination. They serve especially to exercise the ethical judgment, and, because the circle of acquaintance is extended to include inanimate things, the child finds a rich field unlocked, where, on account of the simplicity and correctness of the cases, it learns to decide easily, rapidly and correctly.

A large number of other objective notions also, which relate to the natural conditions of events, are found in fairy tales, and instruction will treat them, too, in a strictly rational manner, so that, notwithstanding the child's utter abandonment to the fairy tale, the harmful effect that was feared does not take place. For in the child's consciousness, whose parts at first fuse but very slightly, the wonderful fairy-tale content forms an isolated circle, complete in

itself, and, instead of hurrying their fusion, the contrast between the supernatural fairy-tale products and the present reality should be allowed to stand out very boldly, with the growing confidence of the child in his experience; the actual in the fairy tale will be emphasized less and less, and more weight given to the poetic and ideal truth of the esthetic and the ethical, so that there may remain, as a much-desired residue, *an ideal tendency of the thoughts and higher reach of spiritual life*. If, on the contrary, there were narrated only what is true and real, it might easily result in a rigidity of conception, which concerns itself only in the most commonplace of sensuous realities, and which has no receptivity, either for the lofty creations of the poets, or for the surmisings and wonders of religious faith.

But all education must proceed from the individuality, only to raise the child above it, and to plunge him into universal human conditions. This latter, also, the fairy tale succeeds in doing. As a national tale, reflecting the principal features of the nation, it expands the child's narrow consciousness through the development of the national germ, through the eternal reproduction of the popular conception of nature and the world. As an international tale, it lets the child participate in the universal spirit of childhood, which of old belonged to the race as a common possession. And, finally, it widens out the child's consciousness beyond what is national and universally accordant with child nature, by filling it with the simplest and most original notions in matters of morality, and by the certain generation of the ethical judgment and of the religious sentiment in the simplest relations which lie within the childish sphere.

Thus do the fairy tales, which are at the same time classic materials, to which old and young love to return, lead from the most individual ideas, from which everything

must grow that is to become strong, to the most general, which belongs to man as such. They serve in their sphere both the child nature and the highest purpose of education.

Touching the moral value chiefly, Dr. Rein says:—

“The genuine fairy tale always represents, in the play of the imagination, a deep moral content; for its root is the poetic side of the mind, which clothes a higher truth in visible shapes and delivers it in the form of a story. The fairy tale hides a multitude of ethical concepts, which lead beyond the sphere of the imagination. Without encouraging any over-hasty moralizing, there is offered abundant opportunity to awaken the ethical judgment, that basis of all ethical valuation,—to develop it and to deduce maxims from it. Ethical ideas are the principal components of fairy tales. Upon these rests the purity that is the characteristic of innocent child nature. In this ethical attraction the principal reason is to be found why the child experiences such a deep satisfaction in the fairy tale, why he manifests such an easy and certain comprehension of it, why he feels such a lively desire for it. The most simple and the most elementary notions in ethical matters are laid down in the fairy tales. But this simplicity facilitates the comprehension: the judgment is clear and undoubted. To the ethical notions are now added a large number of ideas of another sort, which are objectively comprehensible. For fairy tales, though in many respects remote from reality, yet stand in close touch with the ordinary relations of life. The ethical as also the intellectual material must now be methodically elaborated; in a merely playful, occasional use of the fairy tales, as is very often proposed, it is to be feared that the evils which their opponents predict as consequences of fairy tales, especially with reference to morality, will really appear.”

pear,<sup>1</sup> because these evils can be excluded with certainty only by methodical treatment."

As to further central material we are confronted by the difficulty of choosing it in such a way, that it may, on the one hand, continue that activity of imagination which has been aroused by the fairy tale; on the other hand, that it may, by its definite and authentic relations to history, be suited to limit this free dominion of imagination, and to guide the pupil to the anticipation of historical development. In addition to this, of course, the formation of character must be continued that has been begun with the grade of the fairy tale. The new material must at the same time be capable of being utilized; the threads there attached must be spun out farther in order to form the tissue of a moral-religious character. This material Ziller has found in De Foe's story of Robinson Crusoe, whose great pedagogical significance was recognized by Rousseau. Ziller says: "This creation of imagination, Robinson Crusoe, reminds one of that prehistoric time when man first laboriously struggling, and at first unassisted by any social connection, raised himself above external nature, in order to control it and to use it for his purposes; of that time, when by the greatest exertions the very simplest and most necessary experiences and inventions were made, whose significance is so easily obscured by the habit of constant use, and without which it would yet have been impossible for the human mind to cast a quiet glance upon the social ideas, whose realization, in view of his historical development, becomes his duty. When this standpoint has once been reached, a chronolog-

<sup>1</sup> The treatment of all poetical material, even in fairy tales and legends, which is not thoroughly digested and thought out, confuses and undermines the conditions under which we live in the world in general or in special circles, because of the mistakes and confusions which then take place.

ical ascension from the most ancient history of Palestine to the history of the present becomes possible to the pupil. Our aim is, to consider all the periods important in the history of the development of the race, which in their most general features also correspond to the development of the pupil himself, so far as a poet or historian has described them in a classical manner.

"At every cardinal point the conviction must possess us, that the human race cannot stand still here. It behooves us to transmit to the pupil the total acquisition of general human culture, beginning with the first historical germs. It behooves us, first of all, to make him acquainted with all the abundance of human will-relations in their varieties and modifications, and so to influence him, that, for all the circumstances of real life into which he must place himself by means of his imagination, his own judgment shall render decisions in accordance with the ethical ideas or with the universal religious consensus of thought. But it behooves us, also, to arm him as far as possible with the theoretic knowledge of the natural conditions of moral action. Such instruction every pupil needs; to bring it about, we place as the center of the second school year, *Robinson Crusoe*, properly edited."

In the third school year the pupils are met, in the history of the Patriarchs, by the first representatives of human culture; there follows the epoch of heroes (*Judges*); the epoch of an ordered national life under kings; the life of Jesus also, or the world-view represented in him, counts as a stage in the development of general culture, to which one stage of individual development corresponds or should correspond; just so do the two following stages appear necessary to Ziller; they offer the dissemination, inner appropriation and the organizing embodiment of the Christian idea in the life of ns  
value to the

school as a basis for the progressive Christianizing of the pupils.

By the side of the history of the people of Israel is placed that of our own nation, of the German, and in such a way that the various steps may be referred to each other. To the Patriarchs correspond the Thuringian legends; to the Judges, those of Siegfried; so also are there corresponding kings (emperors), Charlemagne, Henry I., Frederick Barbarossa, Rudolph (of Hapsburg); in addition to the life of Jesus, Protestants desire to treat that of the Reformer; beside the spread of Christianity they will study the struggle for the preservation and strengthening of Protestantism, until finally the doctrine of salvation, which forms the connecting and concluding portion of the history of the Reformation, seeks to lead the pupil into the social life of the church; just so, on the other hand, the intellectual co-experience of our great national uprising is to guide the pupil across to the common national life.

These are great materials and great times that we have before us; well suited to fill completely the soul of the child and to give it a content for life. This rich material of education is still further essentially enriched and expanded by a series of new materials. To the central material is first to be attached the related material from our national literature. The time of Charlemagne, for instance, is introduced by the legends of Roland and Charlemagne; in like manner the stories of Hebel are used, in order to relieve the gloomy picture of the Napoleonic wars at the beginning of this century by a series of pleasing and inspiring traits of genuine human action. Also from the realms of nature and of forms much must be utilized that may aid in the understanding of the material of concentration. Thus neither the life of the Patriarchs nor the life of Jesus could be fully comprehended, did not at the

same time geography and natural science inform us of the nature of the soil of Palestine, of its climate and productions, of its inhabitants, their customs and occupations.

Just so everything that touches the experience of the individual, throwing light upon the central subjects, must come within the range of our consideration. Thus it was the custom in Ziller's practice school at Leipsic, to observe the confluence of the Pleisse and Elster when in the study of Bible history Mesopotamia was under discussion; and his pupils marched out to the monument of Napoleon, and visited the battle-fields, when the year 1813 and the battle of Leipsic were discussed in history. And *vice versa*, when the Song of Moses after the Children of Israel have been saved from the hand of the Egyptians is sung, the teacher will not fail to call to mind the words of Kaiser Wilhelm after the victories in France; and when pupils read how Moses sets up judges and writes laws, there will be allusions at the same time to local conditions of law and justice.

Finally, to all the preceding there must be added such materials as tend to perpetuate the interest awakened by the central subjects, showing more clearly the continuity of the progress of civilization or bringing some study of details to a close.

How is the connection between the central subjects and the other materials to be understood? Is there to be a mixing up of branches of instruction? Do the separate branches lose their identity? Do they become lost in the central material, and have we instead only detached notices of them? Nothing of the kind! Points of attachment are to be secured among the separate branches; a unified mood, a closed circle of thought is to be created in the soul of the child. But every branch of study treats its material in its own peculiar way, each emphasizes those phases that

belong to its character, each guides the thought into those channels that lie within its province and domain.

That such a method of procedure is possible, has been clearly shown by the practice school of Ziller<sup>1</sup> at Leipsic.

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<sup>1</sup> Tuiskon Ziller was born December 22, 1817, at Wasungen in Meiningen, where his father was Rector. After a suitable preparatory training at home, as well as in the city school in Wasungen, he entered the Gymnasium at Meiningen and afterward the University of Leipsic, where he studied Philology. Forced by family circumstances, he accepted a position as teacher in the Gymnasium of Meiningen, after completing his academic studies; but about 1850 he again entered the University of Leipsic, to study Jurisprudence. In 1853 he graduated from the university on the presentation of a philosophical thesis. Previous to this time he had manifested an interest in Pedagogy. In the year 1856 he issued his first pedagogical publication, entitled: "Introduction to General Pedagogy," and in the following year "The Government of Children." The path-finding reformer is not yet recognizable in these works. In connection with Dr. Ernest Barth he founded in Leipsic a society for the establishment and maintenance of a practice school, which came into existence there in 1863. Just previous to this, beginning with the winter semester 1861-62, a Normal School (akademischpädagogisches Seminar) had been created, whose teachers gave instruction in the practice school. In the year 1865 Ziller published his epoch-making work: "Grundlegung zur Lehre vom erziehenden Unterricht." Three years later, in company with Senff of Berlin, he founded the Society for Scientific Pedagogy, which at present counts more than eight hundred members. This society publishes an annual Report, the articles of which are discussed in the general conventions. Membership is obtainable on application; the annual fee is four marks, for which members receive the annual Report and the stenographic reports of the discussions. In 1876 were published his "Vorlesungen über allgemeine Pädagogik" (Lectures on General Pedagogy). His last work was "Allgemeine philosophische Ethik" (General Philosophical Ethics), 1881. Early in life he suffered from deafness, while toward the close he had to endure painful physical ailments. He died of dropsy, April 20, 1882.

The presiding officer of the Society for Scientific Pedagogy at the present time is Prof. Dr. Theodor Vogt, of Vienna. Next after Ziller

On the other hand, one must become emancipated from the idea that the various branches can be taught only in the systematic arrangement that is found in conventional courses of study.

Ziller's "Foundations for the Doctrine of Education," 1865, in which the above thoughts were first developed in a comprehensive and thorough manner, is "a master-work, such as is not to be matched in the literature of pedagogy" (Dörpfeld). It may be that the theory established by Ziller will suffer various modifications; that much will at a later time be displaced by something better; however that may be, for the pedagogy of the future the doctrine of Ziller will always indicate the trend. Three men of great merit, Dr. William Rein, Professor of pedagogy in the university of Jena, together with Pickel and Scheller, teachers in the normal school at Eisenach, have carried Ziller's theoretical deductions into practice, with happy modifications of various points, in the epoch-making work, "Theory and Practice of Public Education according to Herbartian Principles." May the publishers succeed, in new editions, in carrying out yet more rigidly the concentration demanded by Ziller!

The reader will have observed that the word *concentration* has, in the school of Herbart-Ziller, a meaning different from the conventional view. *Concentration* is a term which pedagogical shallowness has appropriated. Those on the one hand say, the school has the task to teach the pupil to read, write, cipher; upon these it must *concentrate* its efforts. We have already seen what relation these

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the man most deserving attention for his contributions to the pedagogy of Herbart is Prof. Karl Volkmar Stoy, of Jena (deceased 1885). He, too, conducted a Seminar and Practice School combined. His chief publication is "Encyclopädie der Pädagogik." Other academic teachers are Waitz (deceased), Willmann (Prague) and Strimpell (Leipsic).

branches sustain to thought study. Indispensable as skill in these branches is, it is wrong to put the main emphasis upon them. Our public school is to be a school of *moral education*, not a school of reading, writing and arithmetic.

But those also who place the greatest emphasis upon thought study, often have a false view of the term *concentration*. For it is held, to give one instance only, that besides skill in those things requisite for social life, the chief subject for study in the (German) public school is religion, and people of this mode of thinking are willing to allow the other branches of thought study either no existence at all or but a meager one. This is, to use Stoy's happy expression, "surgical pedagogy," which seeks salvation in the partial or total amputation of individual branches of study, but forgets that it thus develops only one side of the mind. But though the greatest exertions be made on this side, it is just as if one would compensate a cripple for the loss of one limb, by doubling the length of the other. Concentrating the instruction merely by striking out branches of study, does not lead to internal unification, and a school with only two branches, can still, in its teaching, produce two, and even more, concept-masses, entirely distinct from each other.

Close to the Zillerian idea of concentration stands our sturdy Rhenish schoolman, Dörpfeld, who also demands that culture study should form the center of all education. He demands: —

1. Normality of the curriculum (full number of branches, etc.).
2. Unified departments of study, *i.e.*, in a complex department of study, as in religion, the various branches, as Bible history, Catechism, etc., must be combined into one unified course of study.

3. Inter-relating of all the branches in teaching, according to their several characters,
  - (a) of the thought and language studies,
  - (b) of the thought and form studies,
  - (c) of the branches of thought studies among one another.
4. Central position of religious instruction,—in the service of character-building.

It is true, there is here no mention of the culture-historical epochs. But Dörpfeld has called attention to the fact that, "as an idea, this demand does not belong to the principle of concentration." Disregarding the theoretical phase and considering the practical side, the thought of the historical-culture epochs, in Ziller's sense, *has* something to do with concentration. He who carefully reads the theoretical discussion of this idea in Ziller's "Grundlegung," and its methodical treatment in Rein, must soon see that the observing of the culture epochs as they are there given not only facilitates the carrying out of the concentrating function of the four principles above mentioned (*i.e.*, production of a unified thought-content), but also considerably strengthens this concentration itself. Whether the materials by means of which Ziller allows the culture epochs to be represented are properly chosen, and to what extent the matter may be carried out in schools of fewer grades, are the questions under discussion. After Dörpfeld has reminded us that the question of the culture-historical epochs has not yet been discussed to that degree which would warrant practical educators taking position with reference to it, he gives the following advice: "Whoever has at heart the concentration of instruction, let him take care to keep the four concentrating principles distinct from the idea of the culture epochs, and above all work to the end, that the former at least may soon receive general recognition. He

who fails to heed this advice becomes guilty of a grave error, and himself lays obstacles in the way of the good cause; the recognition of the principle of concentration is retarded and mutual agreement concerning culture epochs is at least not promoted.”<sup>1</sup>

After we have spoken, in passing, of the selection and arrangement of the subject-matter in public school education, and shown that the representatives of the Herbartian pedagogy would substitute for the conventional aggregate of studies a study system (*Lehrplansystem* — Ziller), a *well-planned organism* (ein planvolles *Geglieder* — Dörpfeld), we proceed finally to the discussion of the elaboration of the subject-matter.

A one-sided education does not lead to the desired ethical result, therefore instruction must strive to secure many-sidedness. Many-sidedness presupposes many individual impressions, which, in order to produce solidarity of consciousness, must be united. This uniting is called reflecting. The condition, therefore, of the many-sidedness to be created by teaching is reflection, and a change of attention is details.

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<sup>1</sup> Friedrich Wilhelm Dörpfeld was born in 1824 at Wermelskirchen, in the circuit of Lennep. After attending the public school he entered the senior class of the Zahn Institute in Moers, which was at that time also a preparatory school. After a brief service as assistant teacher in a public school he attended the Normal Seminary in Moers, and then received an appointment as teacher in the above-mentioned Zahn Institute. He was afterwards teacher in a small village school. In 1849 he was called to the principalship of the schools of Barmen-Wupperfeld, in which position he remained until, owing to ill health, he was pensioned in 1880. It is especially worthy of remark that at the educational conference to which the Minister of Education had invited him (1872), he defended the unity and well-planned organism of the Course of Study, without, however, succeeding in all his demands. Ten years later he again defended the same issue in a work entitled, “Zwei dringliche Reformen.”

The subject-matter to be treated must first be separated into small divisions, small wholes of instruction or *methodical unities*, each one of which is to be subjected to an elaboration by itself. These methodical unities must not be too large, as they would then be difficult to retain, and yet they must be large enough to have a sufficiently large content. Thus Dörpfeld proposes in the story of the birth and flight of Moses to establish the following unities: (1) Israel's Oppression; (2) The Rescue of the Future Rescuer; (3) The Education of Moses; (4) His First Appearance; (5) The Consequences of this Attempt at Emancipation.

How is the elaboration of the methodic unity to be effected?

We have seen in the psychological part of this essay, that notions must be apperceived, if our mental life is to be truly enriched by them; we have also learned that apperception takes place only between similar related notions. If the new that we purpose to offer to the child is to become his permanent intellectual possession, we must inquire in the next place: What concepts related to the new exist in the soul of the child? These old concepts related to the new must, before offering the latter, be recalled vividly to consciousness, because only then will the new instantly and permanently unite with them. This recalling is effected in the *preparation*; the latter must push aside all foreign thoughts, and loosen from confusion those with which connection is to be made; they must be, as it were, "the hooks to which the new is to be attached"; only by means of these hooks does the new become a permanent intellectual possession, inasmuch as all learning, according to a dictum of Ziller, rests upon the assimilation of the new by the already known. Thus by means of *preparation*, provision is made for apperception, and therefore, as previously shown, for the inception of interest. Thus would be

the character of preparation; it must offer nothing new and unfamiliar; its function is to analyze the child's thought-content, to separate it into two parts, one immediately concerned in the lesson, the other comparatively indifferent for the time being. But in order that the child may, as far as possible, himself select these necessary concepts, and thus a free-rising mental activity take place, the *aim* must be established before the preparation (separation, analysis). This aim must be akin to the older ideas, which are to be connectedly stated, so far as possible, by the children themselves. The setting-up of this aim has the additional value, that it gives the pupils a vigorous motive to volition. The pupil must know from the beginning what is aimed at, if he is to employ his whole strength in the effort of learning; and he will employ it, providing he knows definitely what is to be reached. To lead him up to the aim unconsciously, by questions and tasks whose purpose he does not clearly see, has this disadvantage, that neither a free-rising mental activity nor a clear, internally connected insight takes place. The pupil looks about him at the end of the thought movement with surprise; he knows not what has happened to him; he cannot survey the road he has come; he does not recognize the connection between the result of the lesson and his older knowledge; he does not reach that exalted, joyous mental activity to which he already receives the most favorable disposition by the mere announcement of a definite aim. Without *aim*, no *will*. But a statement of aim is necessary, not only at the beginning of a new unity; every recitation must in fact proceed from an aim. The total aim of the entire unity is to be resolved into special aims for the different recitations. These special aims can for the most part be discovered and stated by the pupil.

Therefore, *first*, statement of the aim, *then* analytical pre-

liminary discussion. In connection with the aim, which inducts the child into the midst of the domain of the concepts in question, the child may, with the teacher's assistance, express his thoughts on the points to be considered. We have above established the demand that the recitation must aim to secure the most intimate connection of concepts. Therefore the statements of the children, which in each case appear more or less detached and ragged, must be closely articulated with one another, and reduced to a series; the children are to state the known material connectedly. Such a summing up of the analytical material lays solid ground for the teaching that is to follow. Although we will gladly concede that many teachers begin the recitation with a preparation, yet we cannot admit that we agree as to the manner of such preparation. Often the preparation consists in an address. In this manner teachers easily commit the error of stating new facts that might better be reserved to a later stage. But disregarding this point, they do not secure that degree of mental activity and interest which is necessary for the success of the recitation. But if opportunity is given to the child to express himself concerning his home and street experiences, the most frigid intellect will begin to thaw out; the new lesson appears in an interesting setting and has gained a point of expectant attention. Besides, the teacher should never relieve the child of an activity that the latter can easily perform himself, and by means of which there is invariably produced a certain feeling of power and of self-reliance.

Relief has also been sought in the attempt to interweave the known material with the *presentation*. But in this way we expect the child to do two things at once, to recall the old, and piecemeal to unite the new with it. Both parts suffer by this arrangement. The older material does not

become clear enough to attract the new fully and entirely; the foundation upon which we are to continue to build is not firm enough, and the connection is not permanent. If one would make the old sufficiently clear, the progress of the lesson suffers by it, and every one knows that pupils suffer ennui when no progress is made. A historical lecture for instance, which could presuppose nothing, would be a very monstrosity, and would leave upon the pupil about the same painful and wearisome impression which a poem provided with countless annotations, or a text covered with learned explanations, makes upon the reader. For as often as the address is interrupted to make explanations, so often occurs a stagnation in the flow of thought in the child; the survey also is lost, which is such an essential part of the act of understanding.

But it is totally impractical to add the known ideas immediately after the new has been presented. This is nothing more than putting the cart before the horse. For the new that found no points of contact has already disappeared in part, and a subsequent reminding of what is familiar only indicates the effort to correct an error which should not have been committed.

When the preparation has been properly made, and to a certain extent an intellectual appetite created, when the old concepts stand, as it were, ready to "pounce upon the new ideas to seize and overpower them," then, and not till then, can the *presentation of the new*, which is the second stage (synthesis) of the elaboration, be truly successful.

The *presentation* assumes various forms according to the age of the pupils and the nature of the subject-matter. According to Ziller, a fairy tale is to be presented in the primary grade orally in story form, a language selection is *to be read* to older pupils, a geographical subject is to be presented by means of speaking and drawing; a physical

process, by experiment and discussion.<sup>1</sup> If the preparation has been of the right sort, the reception and appropriation of the new will take place with ease and certainty without lengthy explanations and interrogations, so that the pupil, according to psychological laws, feels himself mentally exalted; the instruction thus proves educative. To the presentation must yet be added *drilling* in what has been presented to render the acquisition secure. This ends the first principal act of the process of instruction, the process of apperception.

We now come to the *second principal act*. We are now to deduce abstract results upon the basis of the acquired sense-perception of the concrete subject-matter. The second principal act therefore is the process of *abstraction*. For the aim of the school is, according to Pestalozzi, to raise the pupil from vague sense-perceptions to clear conceptions, and Kant regards percepts without concepts as blind. The direction also, "From the particular to the general," merely says: "Pass from the sense-perception to the concept." How do concepts arise? For a complete answer of this question, I refer, besides what is said in the psychological part of this treatise, to the excellent and comprehensive work of Dörpfeld, from which I select the following illus-

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<sup>1</sup> A slight difference exists between Ziller and Dörpfeld as to the treatment of the historical material. Both agree that the understanding to be aimed at shall be clear, and enter fully into details; they are further agreed that in this connection oral communication and free discussion shall go hand in hand. The difference consists in the following: Ziller causes the historical unity under consideration to be simply related (in the upper grades *read*) by the teacher, and after that follows the discussion, with a view to getting a more detailed understanding. Dörpfeld, on the contrary, requires that in all grades the living word of the teacher, *not the book*, shall tell the story; and further, that this relating shall from the beginning be a precise and detailed story, yet such that discussion is combined with this statement, step by step.

tration: If the pupil is to acquire the concept "Labiates," we must show him several plants (from the various genera) of this family. If now, unintentionally or guided by the teacher, the attention is directed to the fact that those plants have many characteristics in common, in this instance square stems, opposite leaves, axillary position of flowers, irregular calyx, irregular corolla, etc., and if these common characteristics are fastened in the mind correctly, the concept of *Labiates* is complete, even though the name be yet wanting. The forming of concepts rests upon the comparison of similar (therefore differing) objects.

The stage at which this happens may be called the *stage of comparison*, or, since several concepts are knotted together, the stage of attachment, or *association*. Aside from the value of relating thought for the purpose of concept-forming, it is necessary in order to bring cohesion, or unity, into the thought-content. Our entire personality consists in the unity of consciousness, which is disturbed when the mind is clouded by an incoherent jumble, and unrelated concept-masses come to rest side by side.

But as the abstract is still combined with the concrete—is not yet clearly loosed from it—the fourth stage, by means of questions, lifts out the abstract results clearly and sharply from the individual cases, formulates them for the use of speech, brings them into systematic cohesion among themselves and with the older abstract material, thus securely impressing what has been acquired (stage of system or generalization).

If the acquisition of the abstract has proceeded in this manner, the demand of Pestalozzi has been complied with, that every concept must proceed from the intuition (sense-perception), and that it must be possible to reduce it back again to the same. Hence it follows, that concepts must not be lightly given, because in that case no concrete no-

tions would be attached to them. Just as intuitions without concepts are blind, so concepts that have not grown from the soil of living sense-perception are empty and valueless. To give concepts first and to fill them with content afterward, is an unnatural procedure too much in vogue.

To the fourth stage (system) must be added a fifth. It is not enough that the pupil has learned something; he must also learn to apply it, for application does not come of itself. One has frequent occasion to notice that children, for example, who in school manifest great skill in arithmetic, are helpless in the presence of problems that their parents draw from the relations of home. It follows from this that pupils need guidance also in the *application* of knowledge. Therefore new objects (examples) are sought in order to recognize in them the concept (the rule, etc.) already acquired; tasks are assigned that are to be performed by application of the rule; cases are offered from history and from life, in order to allow the pupils to decide whether a moral demand has been complied with or not, and in the latter case, to have it stated what the conduct ought to have been, or the children are led into supposed situations and the demand is made of them to indicate how they would act under the given circumstances (imagined acting, stage of application).

Let us now illustrate these five steps by an example. We will suppose we are to treat the story of "Joshua's Farewell and Death." We must first establish our aim. The pupils may indicate occasions when farewells are said and what expressions are used (analysis). Then would follow the presentation of the details of the story (synthesis). Next, the farewell of Joshua would be compared with the parting of Moses (association), the most valuable moral or religious features selected from both occasions and fixed by a suitable quotation, such as, "I and my house, we

will serve the Lord" (system). Finally, situations are found in life where these words spring from the hearts of devout men (application).

Since every concrete lesson-unity may be treated according to these stages, whether it belongs to historical material, or to natural science, to geography, penmanship or drawing; and since these stages are independent of the material, they are called **FORMAL STAGES**. Herbart included analysis and synthesis in the term *clearness*; he therefore counts but four steps. Dörpfeld, who agrees with Ziller's view in the matter, has endeavored to build a bridge for those to whom this method of elaboration seems too complicated. He shows that in these five stages there are three principal operations, which were known in the earlier practice since Pestalozzi, and were here and there in use, viz., observing, thinking (abstracting) and applying. But there was lacking, in the first place, the application of these principal operations to some of the branches, and in the second place, the division of the thinking process into association and system. Dörpfeld therefore counts three principal steps, the first two of which he subjects to a subdivision. Rein follows the above-given enumeration of Ziller, but uses German names. Professor Vogt also holds to the enumeration of Ziller, but for the word *method* he employs the more significant expression *function*. If we begin with the simplest enumeration we shall have the following scheme:—

DÖRPFELD.	HERBART AND ZILLER.	REIN.
1. Observing:	1. Clearness:	1. Preparation.
a. Introduction.	a. Analysis.	2. Presentation.
b. Observation.	b. Synthesis.	3. Association and
2. Thinking:	2. Association.	Comparison.
a. Comparison.	3. System.	4. Generalization.
b. Association.	4. Method (Function).	5. Application.
3. Applying.		

After we have shown the general nature of the **FORMAL STEPS**, it remains to make a few special remarks. The aim must contain something familiar and something new, for the reason that instruction must make connection with it, but also because, as Herbart remarks, "a happy mixture of the new with the old interests most." It may take the form of a proposition, of a question to determine our mental position (and which does not require an answer, but is intended merely to direct the mind to the point in question), or of a task. Merely formal declarations of aim, such as, "we will to-day learn about the following paragraph," have no value whatever, because they neither direct the thoughts nor challenge the will. If the aim is not fully reached in one recitation, the pupils must be reminded of it in the next, and a special aim established for the remainder of the work. Analysis and synthesis must be kept clearly distinct, as their mixture always results in checks and disturbances in the thought movement obstructing clearness of conception. Analysis must be applied to the entire content of the new; it must, in a sense, construct a parallel with which the new may unite all along the line. Though one must be on his guard lest a part of the new appear already in analysis, yet the pupil may be permitted to anticipate results and make conjectures. For, whether the expected takes place or not, the coincidence as well as the contrast is favorable to acquisition. The presentation of the new upon the stage of synthesis takes place by sections (law of successive clearness). After one section has been presented, this is to be restated by the pupil connectedly. As the first restatement is usually still imperfect, it is supplemented by a discussion (correction and completion); thereupon the same pupil is to give the synopsis again, and if successful, other pupils, even weaker ones, are to be encouraged to make the restatement.

ment. In the same manner the other parts of the unity are treated, properly connected with the preceding, and finally stated by the pupil as his complete impression. When the pupil has acquired the facts, he must be led to form judgments concerning will-relations that may possibly be contained in the concrete material. Association must not be applied aimlessly to everything possible; it must rather be directed toward valuable thought connections. So far as the selection of the abstract is concerned, the aim must be directed only to what is characteristic; and where our moral conduct is concerned, to that which is expressed in the form of sayings, proverbs, quotations, etc. In the case of natural history and geographical material, the separation of the abstract consists in a brief yet comprehensive statement of the subject, including everything essential, excluding all non-essentials.

“Strange as the arrangement of instruction according to the formal steps may appear at first sight, yet it is by no means entirely new. It asserts itself in every good recitation in a greater or less degree, only, the mere empiricist bases it, not upon psychology, which must permeate the entire process of learning, but rather upon a certain instinct of tact, which he has acquired by long experience, the reasonableness of which, however, he is unable to demonstrate. The methods of instruction followed by the Herbart-Ziller school elevate this obscure feeling to a clear and definite pedagogical idea. Every step in the recitation is exactly prescribed by psychological laws solidly established. A highly important matter which previously had been left to the care of a feeling of happy tact, has by one stroke been brought into such clearness that it is capable of illumining the entire method of instruction” (Rein).

The articulation of the recitation according to the formal steps is omitted where but a single point is to be enforced

by the recitation, as in the matter of correction or reviews, or where the material has already been logically connected.

The teaching process should have the form of conversation, not that of catechism. Everything should be the result of a common reflection. Therefore the teacher must allow the child freedom of expression; he should never press the child to repeat previously established expressions. The questions should not apply to single detached points, but the child must become accustomed to express himself on the topic in connected speech. If a child has a comment to make on the statement of his fellow-pupil, he may raise his hand of his own accord, and the teacher gives him permission to add his own thought. In general, wherever possible, the teacher should withdraw from the discussion and permit the pupils to settle it among themselves; in short, he should guide the discussion only formally. Except in examinations and reviews the pupil is generally never commanded to speak. The lesson should so arouse the interest that from most pupils voluntary statements will result. Yet the application of this so-called method of disputation requires great caution, especially in large classes.

It is the purpose of education so to form the thought-complex, that volition will result from it. But *knowing* alone will not do this, it must be connected with interest, which is the root of volition; in brief: education has for its aim, to produce knowledge that incites to volition. By means of his knowledge the pupil must judge whether in his acting the purpose and means are ethically approvable. When instruction has generated knowledge that incites to volition, and that is controlled by ethical ideas, its task is done. But with this educative activity of instruction education is not yet concluded. If it did nothing more, it would merely succeed in forming human beings, who, though very clever and knowing exactly from an ethical standpoint what

to do and what to leave undone, responding to the good and condemning the bad, might, nevertheless, come into conflict with ethically controlled intelligence, as soon as the fulfilling of these ethical demands is to some extent connected with difficulties, self-denial, etc. The actions of such persons would then be determined almost solely by the circumstances of each case, and their volition would be almost as changeable as these. Their volition would never attain uniformity; it could never be predicted of them with certainty, how they would act in any given case. Such persons can never be relied upon; they are a shaking reed, which the wind of chance moves hither and yon.

From this it follows that yet another educative activity is needed, if the entire volition is to be always in harmony with intelligence controlled by the ethical ideas. This activity we call *Training* (*Zucht*), or moral education, in the narrower sense; we call it also immediate character-forming. Upon the basis of correct knowledge, which has been acquired by means of instruction, it seeks to strengthen correct volition. Whence it follows, that training can perform its task only when, and in so far as, instruction has already succeeded in doing its work. This necessitates a later appearance of moral training.<sup>1</sup> But even before the child possesses intelligence he must do various things, omit various things. He must come to school punctually, must sit quietly during the recitation; he must not soil the walls, must not destroy the furniture, etc. It is true the little pupil does not come tardy with bad intention, nor does he whisper or move about on account of such intention; therefore these trans-

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<sup>1</sup> This, however, must not be understood to mean that teaching is to be entirely completed before training may begin its work. It is rather the function of the latter to enter at once into the several results of instruction, and in this sense it moves along, side by side, with instruction.

gressions are not subject to censure, ethically, but they are not suited to the work of the school; they are disturbing, and must, therefore, be avoided. The child under school age does not tear the wall-paper or his clothing on account of a bad disposition, but all the same these naughtinesses must not be permitted, for they annoy and injure adults, some of them also the child himself; harmful habits are thus easily formed for the future (tendency to lack of cleanliness, etc.), when this naughtiness is allowed full play. The regulation of what the child is to do and to avoid belongs to the idea of *Government*.

There are, therefore, in all three activities of education, which, according to the sequence of their appearance, form the series, *Government, Instruction and Training*.

Instruction has already been discussed. We will next speak of

#### GOVERNMENT.

Its purpose is not really to form character; it merely seeks to keep order. Its purpose is to prevent everything that might disturb instruction and training, annoy adults, and harm them or the child, but that is not really bad, because it does not arise from a bad will.

How are these tendencies to naughtiness to be reached? Since they arise from the desires, it is best to stop up the sources from which the desires spring. If we would not have the child restlessly move about in his seat, twist and stretch himself (all of which disturbs the recitation), we must not, in the first place, challenge these movements by prolonging the time of the recitation farther than is just and right, but we must have due consideration for the needs of his physical organism.<sup>1</sup> If this limit is not maintained,

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<sup>1</sup> Here it is well to think of the significance of gymnastics as a means of government.

the desires will break through the school order. The consequence is that the teaching will not succeed, and disorderly habits will be formed.

Just as government must see to it that the needed bodily requirements do not act disturbingly, so it must take care that mental requirements do not produce confusion and disturbance, or inconvenience of another kind. Well known in this direction is the child's impulse to activity. If this impulse is not suitably provided for, it will occasion various disturbances. If a class, for instance, is busy with the written solution of a task, and in such a case one child has completed his work before the others and no suitable employment is provided for him, he will very often provide himself with unsuitable work; he will try to whisper with his neighbor, spoil his books with his lead-pencil, carve letters into his desk, etc. Such mischief can be prevented, if the child is never left entirely without employment; in the above case, if the pupil is provided with a new task, not with purpose to cultivate, but merely to prevent mischief (which does not exclude that the solution of the task may incidentally also have a cultivating effect). One of the most important employments as a means of government is *play*. This secures the child against idleness and ennui, preventing, therefore, all forms of mischief that follow in their train, as well as the growth of harmful habits, which would otherwise germinate in that soil.

A second means of government is *superintendence*. The mere presence of a teacher, especially of one whom the children highly respect or to whom they are strongly attached, is sufficient to keep them within the necessary bounds, to prevent improper thoughts from springing up, to forestall all mischief, and to render superfluous all severer measures of government. Very often not even a reminder to do or to omit this or that becomes necessary. Raising a finger, calling by

name a child just beginning some disorder, is often sufficient to recall the presence of the teacher, and to nip in the bud any disposition toward insubordination. Watchfulness of the teacher, therefore, is a very excellent means of preserving good order.

It becomes necessary also at times to command and forbid. This requires obedience. We can demand obedience of a pupil in a twofold sense. Either the pupil may be asked to carry out the will of the teacher without a knowledge of the reasons which the latter has, or else the will of the teacher is carried out, after the pupil, in consequence of previous reflection, has made the teacher's will his own. Government is concerned with the obedience of the first kind, which is commonly spoken of as *blind* obedience, because as long and as far as government must be employed, understanding is not yet possible. This obedience the teacher may secure the more easily, if he has the love of the pupil and thus the means of influencing him. The child obeys authority almost instinctively. The pupil who loves his teacher obeys so as not to lose his favor, for which he cares.

Commands and prohibitions involve, when necessary, reproofs, threats and punishments (loss of liberty or privileges, and in rare cases, corporal punishment). But all reproofs and threats must be connected with no explanations why this or that is demanded; all punishments as measures of government must be inflicted without directing the attention to the fact that the naughtiness committed was bad, and therefore reprehensible; they must be carried out without exciting the childish mind; they must appear to the child as a natural consequence necessarily following upon the act committed. Thus the child is made wiser and is trained. For government is not to form character, but to prevent mischief. Its purpose is not really to make better, but only for the nonce to deter; it aims at order for the moment.

If government succeeds well, the pupil unconsciously accustoms himself to punctuality, order, diligence, cleanliness, etc. These qualities are called *mediate virtues*, because in themselves they are not yet good, but by the method of their application may contribute to the promotion of the good. That diligence, *e.g.*, is not a good in itself, may be seen in criminals, whom certainly no one will praise; but it becomes a virtue, if it finds application in the service of the good (as when one labors so that he may have to give to the needy, etc.).

#### MORAL TRAINING.

It is the care of training to see that the conduct of the pupil, not only during the time of education, but also later in life, is in accordance with the ethical judgment, and not contrary to it. Training therefore must see to it that the volition of the pupil receives its tendency from the ethical ideas, that every subsequent volition shall bear the imprint of a personality which has placed its volition exclusively in their service.

How is such a tendency established?

In order to make this clear, we must recall the nature of volition. Volition springs from the desires, when with these is coupled the conviction that the thing desired can be attained. The volition is therefore preceded by a reflection, which may concern itself also with the duties, considerations, etc., that are involved. From all this will be seen that with every volition a considerable number of concepts is simultaneously raised into consciousness. In consequence of this reproduction, these concepts assume the character of belonging together. The attainment of the thing desired is coupled with a feeling of pleasure; an image of the volition remains behind in the soul, having the impulse to become as

clear as possible, *i.e.*, to reproduce the feeling of pleasure that manifested itself at the time of the first volition. Such a will-image, created by a single act, is called a *single volition* (*Einzelwollung*). The oftener an identical act of volition is repeated, the stronger becomes the single volition, and soon a habit of definite action is formed, a habit, from which, if it has been fostered sufficiently long, we cannot loose ourselves.

Let us assume that such a will-image, or single volition, has been formed in the soul. Now let a new volition, merely similar to the earlier, spring up in the mind. Then, according to the law of similarity, a movement takes place among the concepts determining the earlier volition, and with these the will-image then acquired rises. This will-image strives to attain clearness, and now tests the new volition; it finds that the latter tends in the same direction, and that by the realization of the latter, the impulse dwelling in the older will-image, though not in all the details, yet in a general way, is gratified, and now the new volition is aided by the older image, so that it attains to realization much more vigorously than would otherwise have been the case. There are now in existence two similar will-images that are mutually related, just like similar (compound) concepts.<sup>1</sup> Just as in the latter the new elements unite to form a new concept, the psychic or logical notion, just so the identical members of the individual acts of volition mutually grasp one another, and, as they repress the contradictory, irreconcilable elements that are contained in the concepts forming their basis, they fuse into a new will-image, which appears not only much more vigorous, more vivid and more clear, but, as the individual peculiarities of the single volitions

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<sup>1</sup> For the sake of clearness we *think* at first of the will-image as still *apart*; in reality the union takes place already *during the act of volition*.

have been kept at a distance from it, also more refined. From the single volition there has been formed a more general volition which may be compared to the psychic concept. Each new similar volition renders yet more general the volition that has already been generalized just as the psychic concept is made more general by further intuitions, thus approaching the logical concept. From the fusion of single volitions universal volitions are formed.

In the preceding we have assumed that the existing image of the single volition is approached by a similar volition. How does the psychic process unfold when the new will is opposed to the older will-image? The earlier acquired will-image is (perhaps) reproduced in this case by the law of contrast and tests the new volition; it finds that the latter does not tend in its (the former's) direction, that it even strives against the degree of clearness already achieved by the former, and therefore the former suppresses it. If every volition that is opposed to the previously acquired will-image is not suppressed, it is because the earlier will-image is not reproduced at all, or not with sufficient force; memory of knowledge is in this case but weak or entirely lacking.

The memory of the will (reproduction of the will-image) is based, as we have seen, upon the excitation of the concepts by whose co-operation the will-image was produced. If the will-image is to appear distinct, strong, the concepts must be associated very intimately. This is the case, for instance, when it has been produced after energetic, thorough reflection. A volition that has cost us much reflection we recall very distinctly. Then, again, the entire thought-complex must be so closely connected that the concepts in question may be instantly set in motion, so that the influence of the will-image upon the new volition may not come too late. The will-image comes forth clearly, only when the new

volition has already expressed itself in action. When the latter has happened, the old will-image finds a new completed one, dissimilar to itself, and the result of the juxtaposition is an arrest of endeavor to attain clearness on the part of the older will-image. This arresting causes a feeling of displeasure (repentance). If, on the contrary, the older will-image is reproduced rapidly and vividly enough, it will remand the opposing volition, because this cannot satisfy the impulse to clearness residing in the former. From what has been said, it follows that the memory of the will depends upon the close connection of the concepts, *i.e.*, upon orderliness in concept life. Here it is plainly seen what influence education exerts upon the memory of the will, and as we shall see still more clearly in the course of this discussion, upon the entire culture of the will.

We must now examine yet more closely how the testing of the new volition by the older generalized will-image takes place. While both series of concepts forming the basis of volition stand arrayed against each other for a time, the older and stronger of them, *i.e.*, that one in which the general volition resides, tests the younger, weaker one, to see whether it have a sufficient number of related elements to warrant a fusion of both thought-masses. If this is not the case, if they contrast in several essential members, and therefore the single volition cannot be apperceived by the general volition, the latter rejects the former as inadmissible. A certain purpose is then given up because "we have considered the matter in a different light." If, on the other hand, the single volition agrees in the essentials with the general volition, a fusion of the two takes place, in other words an *appception*. The thought-masses thus united now develop a total force of endeavor such as the single volition never could have attained, and which secure to it a high degree of energy and power to resist; while, on

the other hand, the general volition is strengthened by the apperceived single volition.

The result of examination of the newer concept series by the older with reference to its apperceivability is a judgment, whether the new individual volition be in harmony with the general volition or not, and as the general volition strives to come into clearness, the judgment implies for the new volition also a command or a prohibition. Such a judgment, implying a command or a prohibition, yet so general that it applies not only to a single case, but to an entire class of like cases, is called a *practical principle*, or *maxim*.

He who in youth is trained to give drink to the thirsty, food to the hungry, etc., will develop a habit of volition that is in harmony with this general volition; every individual volition which militates against the latter is turned back, repressed. A general judgment has been formed, which in every similar case is perceived by him who performs the act of volition, in the form of a command or a prohibition. This judgment (this practical principle, or maxim) is: "Help your neighbor in trouble." As this proposition fits all cases of human life that belong here, it becomes for the person a norm for all future volition that belongs to this class. When it has become a psychic power, the tendency of an entire class of volitions answering the ethical demand is secured for the future.

If the ethical principle is to be a power that shall dominate the individual volition, it is not sufficient, as may be seen from what has been said, that it be merely committed to memory or learned by dictation. If the maxim is to endure through life, it must have come into existence *through* life and *from* life; true maxims are always the expression of a piece of autobiography. Maxims that have their source in thoughtful reflection (*i.e.* in the class-room) must first become vitalized in order to become genuine maxims. By

frequent application a firm, reliable habit based upon the understanding must be formed.

Training must see to it, as far as possible, that all classes of volition are placed under the dominion of ethical maxims, in order that a quiet, uniformly distributed passion for the good be produced. If the ethical principles possess such influence in the mind of the person that they dominate the entire individual volition, we speak of a *moral character*. Character in general is uniformity and firmness of the entire will. When bad principles are the dominating power in the mind, the character is an immoral one. A person who is not at all consistent, *i.e.*, does not act according to principles, either good or bad, is *characterless*. Children possess no character; in their minds it can but gradually come into being. What they would do or omit, have or do without, endure or not endure, is not governed consistently by ethical principles. The beginning of the formation of such consistency or uniformity of action coincides with the formation of independent general ethical volitions that have sprung up on the basis of several similar acts of volition. These general volitions are the points of crystallization in the confusion of individual volitions, the latter of which are attracted and apperceived by the former, providing their structure permits this. These general volitions, which begin to determine, *i.e.*, to apperceive, or to suppress, the individual volitions, form the beginning of that which is called the subjective part, the subjective basis, of character. This phase of character has its origin in the volition that springs from the apperceiving concept-mass; opposed to it is the objective part, the individual volition, which springs from the various desires. The subjective part of character determines; the objective is the part to be determined. From the remarks concerning the nature of interest, the deep significance of instruction for the objective phase of

character becomes at once apparent. The aim of instruction is a many-sided interest; from this results the many-sided volition. So far as the subjective side of character is concerned, it is the task of instruction in conjunction with training to see to it that not several such dominating thought-groups, either side by side, or following one another, come into power, but that the unity of that group becomes established upon which rest the energy and consequence of volition peculiar to the character, and by means of which also a restraint may be placed upon the dominion of the passions.

We shall now speak of the method of procedure in Training. It is the task of immediate character-forming (training) in every sphere to place the pupil in such situations and to open to his interest such opportunities as will enable him to act with success in accordance with his own thoughts. But these opportunities must not be so manifold at one time that the memory of the will suffers. The latter is produced only when acts of volition of a like kind are often repeated. Hence it is demanded that training shall form the will of the pupil in *relations of one kind*. In well-ordered communities (therefore in direct contrast with a life upon the street), where the right, according to Goethe, is not regarded as medicine, but belongs to the diet of life, a constant, even and regularly recurring mode of action may be inaugurated, and it is precisely this that is essential; for not an isolated, scattered action of will is to be allowed to spring up, but an active, consistent volition is to arise, and for this it is most essential that every volition come into strict accord with habit and regularity, into strict accord with memory. Thus we have a volition into which memory has entered, *i.e.*, one in which the individual need not first reflect what and how he must act, but rather one in which this is all determined before-

hand in every instance. Where the memory of the will is wanting and frivolity takes its place, it behooves us to train the pupil by *restraining* and *constraining* in order that a conformity and uniformity of volition may result. Training presupposes authority and love. What the pupil has lost sight of, it must recall to him. To his wavering and straying it must constantly give outward steadiness and uniformity, and the latter must be clearly illustrated for the children in the conduct of the teacher. But here we must not substitute reasoning for the establishment of habit. The children ought not to be argued with. As a second effect, training should be *determining*. It should cause the pupil to choose for himself, not the teacher for him, for it is the character of the latter that is to be determined. When the subjective part of character begins to appear, then begins the negative phase of training. Though one ought not to argue with children, yet, as soon as the pupil begins to reason for himself, such reasoning must not be abandoned to itself. The teacher must, reasoning, fall in with the argument, and prevent a wrong conclusion. But the chief consideration for training is the consequence or in consequence of acting.

Finally, training is at the proper time to warn and reprove, even though the pupil has already reached the point of moral self-determination. But when the pupil has already deserved confidence, not only for his purposes, but also for his principles, then training must retire. When self-education has once been assumed, it should not be disturbed.

This would be the form of training, if it were based merely upon the moral law which is to be developed into conscience. As we have seen in the discussion of instruction, education must bring into co-operation not only the idea of God, but also religious thought and life; This co-operation must manifest itself, therefore

measures adopted by training. That the moral laws are the will of God, the child has learned from previous instruction. When in the course of training a reminder becomes necessary, this takes the form of an exhortation (a reminding of God). When it has been previously mentioned that training requires a constantly repeated volition and action, there follows from its application to the religious life an accustoming to a regular religious worship, to private prayer, to family and public worship. Here, too, the blessing of such revivings of the religious thought and feeling lies not only in their ardor but also in their constancy. It is a great blessing when a child grows up in a community where these exercises of the religious sense belong to "the diet of life."

#### QUERIES.

1. In what points does the pedagogy of the Herbartian school differ from the customary?
2. Where are there points of contact?
3. What may be urged in favor of opposing views?

## PART IV.

### SPECIAL METHODS. EXAMPLES OF CONCENTRATION.

#### A. EPOCH—VOYAGES OF DISCOVERY.

##### I. CHARACTER-FORMING MATERIAL.

ACCORDING to the reasoning of Ziller, material for character-forming must constitute the nucleus of the entire curriculum, and in accordance with this view central studies have been established for each school year that represent in their sequence the development of human society, through which every individual must pass. The character-forming material for the public school from the beginning of the third school year consists of two parallel series, one of which belongs to sacred, the other to profane history.

The religious character-forming material for the sixth year is the life of Christ. Parallel to this we have first the history of the voyages of discovery and then the life of Luther, the renovator of the Christian church.

If we seek how to make connections between these two series, we find abundant opportunity to do so between the life of Christ and that of Luther. But less numerous are the connections between the life of Christ and the story of the explorers, though they are by no means altogether wanting.

Through Christ the national narrowness of the Kingdom of Heaven is removed once for all; the heathen

from the east and from the west are to have a part in the Kingdom of Heaven. To such peoples as still sit in darkness the travels of discovery call attention. The sending forth of the disciples directs attention to the mission of the nations of our Christian civilization to the heathen, and we discover a most striking contrast between the self-sacrificing love of Christ and the selfishness that mocks every description of those who bore his name.

The moral-religious reflections made at this place also throw light upon the more recent attempts at colonization of the German Empire, over which earnest men are watching, lest in our colonies the spirit of selfishness that would be inclined to offer those children a serpent instead of meat gain the ascendancy.

To the character-forming material are now added in appropriate places, hymns, proverbs, statements from the catechism, and other quotations. The selection is here so easy that we refrain from a statement of details.

## II. GERMAN.

(a) Of reading material there is no lack. The story of the life of Christ and tales of travels and voyages of discovery are used for this purpose. Besides these poems we have both such as are to be read cursorily and those that are to receive an exhaustive treatment.

(b) Poems. In connection with the intercourse between the Spaniards and Islanders is to be read Seume's poem, "The Savage," which is to be considered especially from the standpoint of true and false culture. (Rousseau's dictum: "Go into the forest and become men.") In this poem the Indians are placed in a too favorable light; hence a proper correction must be made, for which the geography lesson will also offer abundant opportunity.

The Spaniards expect great things of the newly discovered world and emigrate in large numbers, but are bitterly disappointed. Here Freiligrath's poem, "The Emigrants," is in place.

Columbus navigates the sea, whose characteristics, surface of bottom, inhabitants, etc., are discussed in the recitations of other branches of study. Thus there are also offered connections for Schiller's "Diver." Connected with this, on account of relationship of the ideas, may be "The Glove," "The Little Hydriot," by Mueller.

Finally "The Dirge of Nadowessier," by Schiller, and "Silence of the Sea," by Goethe, would also be treated.

(c) For German composition would be furnished: —

1. A brief statement in prose of the poem by Seume.
2. A comparison of the persons in "The Diver" and those in "The Glove," respectively.
3. While the pupils are reading about Columbus, they arrange a list of the principal characteristics of the hero, and that according to definite heads, as *industry* and *perseverance*, *piety*, *nobility of mind*, etc. Some of these heads are afterwards developed in the form of essays.
4. Additional materials for composition are furnished by descriptions from the realms of biography and natural history, as will soon be seen.

(d) For grammatical instruction the correction of essays will offer occasion. Errors of punctuation will give rise to the discussion of the simpler forms of the complex sentence and the distinction of the latter from the contracted sentence.

(e) In the realm of the history of literature the biography of Freiligrath belongs, to which will be found points of attachment in "The Emigrants." The poem was written in 1832, in Amsterdam.

(f) Prosody. — The poem, "The Savage," offers occasion for the discussion of (1) Alliteration, (2) Assonance. In this connection are developed the notions of

1. Paired and crossed rhymes;
2. The poly-syndeton ("and it bubbles and seethes and it hisses and roars").
3. The hyperbole ("the spray to the welkin upsoars").

The contrasting of the two poems will show that rhyme is not essential to the character of poetry. The circumstance that in "The Diver" there is at one time a rhyme of the word *keck* with *weg*, clearly indicates that rhyme is a matter of the ear, and not, as the pupil might easily infer, of the eye, because here the word *weg* must be pronounced *weck*, in accordance with the usage in vogue in some parts of the country.

### III. GEOGRAPHY.

The voyages of Columbus lead to more detailed study of the ocean, which may be connected with what the pupils may yet remember in this direction from the treatment of the Crusoe material. There will come up for discussion:—

1. Open and Sargasso sea;
2. Color and movements of the sea;
3. Taste of salt water; salt deserts.

Boys might be interested in a more careful investigation of navigation, again calling into prominence this phase of the Crusoe material.

Columbus sails over the Atlantic Ocean. The name suggests the mythical Atlantis, of which various island groups are regarded as the remains.

On the ocean were found fragments of pumice-stone; this leads to a consideration of the volcanic origin of the West Indies and other islands, together with their description.

**The Lesser Antilles.** Columbus first rests upon the Canary Islands.

Afterward he lands upon an islet of the Bahama Group.  
(Cf. Natural History.)

The circumstance that settlements are made by the Spaniards upon the Greater Antilles, necessitates a description of these islands.

The treasures that Columbus brings home for his vindication become the occasion for the discussion of the theme:—

“The Importance of the Greater Antilles for the Commerce of the World.” (Cf. Natural History.)

From the study of the West Indies, whose name is explained by the voyage of Columbus, we turn our attention to the North American Continent, whose middle and northern portions are described, while the southern part remains undeveloped until the discussion of the discovery and conquest of Mexico.

The poem, “The Savage,” furnishes points of suggestion for the discussion of the Indian,—his form, character, religion, customs and manners, and mode of living.

“The Emigrants” gives opportunity to describe the occupations of the farmer, emigration, forests, prairies, etc. By way of contrast there is given a description of the home and industrial life in great cities (wealth, luxury, industry).

The commercial intercourse between the old world and the new leads to the discussion of the means of this intercourse:—Steamer Lines, Transatlantic Cable, Pacific Railroads.

Upon his last voyage Columbus sought along the coast of Central America for a passage between the Atlantic and the Pacific Oceans. This offers occasion to describe the country and to mention the attempt (and recent failure,—Tr.) to construct a Panama Canal. (Promoter; comparison with Suez Canal; what advantages offered by each?)

The plan of Columbus to reach India by way of the West was conceived on the presupposition of the rotundity of the earth. Here are points of connection for the study of mathematical geography. This same branch is also referred to in the discussion of: Trade Winds, Ocean Currents, Relations of Temperature, Eclipses of the Moon, etc.

#### IV. NATURE STUDIES.

(a) Physical Geography.—Columbus found in the Sargasso Sea great meadows of sea-weed.

1. Description of the *Algæ*.
2. General view of oceanic vegetation.

The fact that masses of sea-weed are torn loose and sink, leads to the

ORIGIN OF COAL. (The theory that refers the origin of coal to the carbonization of sea-weed is ably defended by Dr. Friedrich Mohr, in his "Geschichte der Erde." Those who cannot accept this theory will also take up the discussion of coal formation at this point.)

The carbonization of woody fiber is shown in wood which for some time has been kept under water and thus cut off from the air. Excursions (when possible) to peat-diggings and coal mines.

Observation of differences between anthracite and bituminous coal and peat, with reference to their origin. (Again consult Mohr.)

The Bahama Islands where Columbus landed are of coral formation. Hence appears at this point the description of organ-pipe coral. Connected with this description of island-forming corals is that of the red coral, as well as of other valuable products of the ocean bottom. Mother-of-pearl, sponges, the shark, one of the inhabitants of the sea.

From the vegetable kingdom is described the sugar-cane; from the mineral kingdom, gold, to obtain which, the Spaniards bent all their energies. The latter might, however, be postponed until the conquest of Mexico (California) is treated.<sup>1</sup>

(b) Physics.<sup>2</sup>—For his orientation upon the sea Columbus

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<sup>1</sup> Tobacco and the potato might also be profitably treated at this point. Considering, however, the abundance of materials that must be treated, these subjects are better postponed until the introduction of these plants into Germany comes up for discussion.

<sup>2</sup> The reader will have noticed that the materials belonging to the several branches of Natural Science vary greatly with respect to their *quantity*; so that a lesson in Physics might already be disposed of, while the topic in Physical Geography is yet far from completion. What is to be done in the recitation hour in Physics during this time? How does this arrangement secure to the several branches that uniform progress which the principle of concentration requires? These questions are answered by placing on the program of recitations but one topic: *Natural Science*. In the hours set apart for this the class discusses whatever is necessary, whether it is descriptive Geography, or Physics or Chemistry. But it must not be thought that this method of procedure has been invented for the benefit of Zillerian Concentration; it is based rather upon the fact that factors which must be assigned to various branches of Natural Science are in reality inter-linked with one another, so that they must receive equal attention in individual investigations. When in this way a quantity of natural-science material has been treated, this will be classified from such standpoints as Natural Science, Physics and Chemistry, and thus scientific order will be brought into the material that originally was brought to the attention of the pupil in its *natural* connections. Systematic arrangement, therefore, is seen to be the conclusion of natural-science instruction.

makes use of the compass. This is described. A sewing-needle is magnetized and brought into a free-swinging position, whereupon this will, like the needle of the compass, point to the north. This circumstance, combined with the fact that upon the first voyage of Columbus the needle deviated in a remarkable manner toward the west, urges to a discussion of terrestrial magnetism. The whole subject of magnetism will have to be treated exhaustively at this point. (Electro-magnetism?)

The story of the treasures of the sea stimulates the inquiry as to how they are brought to the surface. We must therefore treat: Diving and diving apparatus, especially the diving-bell; swimming.

(c) Chemistry. In case gold is discussed, the teacher should not fail to point out the distinction between the precious and the base metals. This leads especially to the oxidizing of copper and iron. Breathing in the diving-bell and the necessity of supplying fresh air indicate the composition of air (Oxygen).

#### V. ARITHMETIC.

The task of arithmetic at this stage is the introduction to Fractions. The origin of fractions is shown in the construction of a compass-chart. The line from north to south divides the circle into halves. The line from west to east produces fourths. A further division produces eighths, then sixteenths, and finally thirty-seconds, with which the division is usually complete. All ideas associated with fractions, such as reduction descending and ascending, etc., can thus be shown objectively. To show these last-mentioned operations effectively, we may divide the circle into degrees (cf. geometry).

A further exercise will consist of a similar division of a circular grass-plot or of a garden-bed.

Decimal fractions are regarded as complements of integers. They can also be treated in connection with common fractions.

Arithmetical material for common fractions is supplied, for example, by measuring the alloy used in gold coins (cf. Nature study). Then may be computed, for instance, what fraction of the population of Cuba are (a) white, (b) colored, (c) Asiatic, (d) negroes.

In computing by decimals, the results per cent would be sought in each case. Additional exercises, both in common and in decimal fractions, might be as follows: to make computations as to the receipts and expenditures, debts, imports, exports of the West Indies, also as to the relative numbers of inhabitants and extent of these islands; the relative production of tobacco of Cuba and of Germany; as to the postal and telegraphic intercourse between the West Indies and the various cities of North America, etc.

It cannot be denied that there is yet needed a careful collation of statistical material, if our arithmetical teaching is to draw its life from thought study, though there are even now many sources for this kind of material, for instance, the statistical tables in the newer manuals of geography, encyclopædias, etc. (Texts recommended for German schools are, Geography: Daniel und Guthe; Arithmetic: Hartmann und Ruhsam.)

#### VI. GEOMETRY.

The study of the compass-chart is followed by that of the circle. The lines of division form radii and diameters. The deviation of the magnetic needle leads to the division of the circle into degrees, and this to the measurement of angles by means of degrees. Then follows a discussion of the ellipse and the oval, and a comparison of these with

the circle. Later on the computation of the circle may be taken up in connection with some concrete problem, such as the computation of a circular flower-bed.

### VII. DRAWING.

Figures (ornaments) which consist of circles, ellipses, ovals or their parts are studied.

Whether the forms of marine animals (shell-fish, star-fish, etc.) or those of tropical plants would furnish suitable drawing material in this grade, must be reserved for special investigation. In like manner it is yet to be determined whether the development of art might not furnish useful material.

### B. EPOCH—THE AGE OF THE REFORMATION.

#### I. CULTURE MATERIAL.

The central material for this (the sixth or seventh) grade consists of two series, the one religious, the other historical. The religious has for its subject the conclusion of the life of Christ and the beginning of the Acts of the Apostles. By the side of this is placed the history of the renewer of the Christian religion and the story of the struggles for the preservation and spread of the Reformation. The various points of contact between the two series are too manifest to require a detailed elaboration. In the case of both we emphasize the purity of purpose. The words of Peter, Acts iv. 20, correspond exactly to the utterance of Luther before the Diet of Worms.

(It is of course self-evident that the treatment of such materials in an American public school is out of the question; yet in the elaboration of these themes we can trace the principles which it is desired to illustrate, and for the

application of which we must endeavor to find new materials, more suited to our needs and conditions. I shall therefore give only a brief synopsis of such portions as are of less importance and interest to us. — Tr.)

In connection with the history of the Reformation the most important inventions (printing, gunpowder) are then discussed. Ziller would append the discussion of these, as well as of the voyages of discovery, to the history of the Reformation, as an answer to the question: How was such a vigorous mental life of the German people brought about? But we regard it as too difficult a question to be discussed profitably by children of this grade. The invention of printing is best inserted at that point in the history of the Reformation where the rapid dissemination of the theses of Luther comes under discussion. Here the question may be asked: How was such a rapid distribution possible? In order that the progress of the story may not be interrupted too long, the technical part of printing may be discussed in the natural-science hour.

The invention of gunpowder is most appropriately discussed immediately before the Thirty Years' War, because the entire mode of warfare here appears different from that previously known. Ancient and modern times come into contact in tournaments, where bow and gun are in use side by side.

In order to know the state of culture during the period of the Reformation, and the misery produced by the Thirty Years' War, various literary works bearing on this period are studied, which need not be here specified.

## II. LANGUAGE.

To the precursors of the Reformation belong two of the most important mediæval poets: Walther von der Vogelweide and Wolfram von Eschenbach.

*a. WOLFRAM VON ESCHENBACH.*

1. The legend of Arthur.
2. The legend of the Holy Grail.
3. Percival.

*b. WALTHER VON DER VOGELWEIDE.* — Various poems. On the basis of these an answer will be sought to the question: What were the subjects treated by the Minnesingers? Court-life is discussed in connection with Goethe's poem, "The Harper." Mediæval poetry as a whole is studied from the standpoint of literature. Within this period the rise of lyric song also occurs, which is treated according to its varying character as folk-song, war-song, etc.

In connection with Luther's translation of the Bible are discussed: —

1. Luther's influence upon the German language.
2. The nature of Biblical poetry.

Materials for composition: —

1. The legend of the Holy Grail.
2. The legend of Percival.
3. Luther's youth.
4. Luther at the Wartburg.
5. Luther's services to the German people.
6. How folk songs were produced.
7. The Meistersgesang (Mastersong).
8. Soldier life in the Thirty Years' War.

### III. GEOGRAPHY.

Astronomical Geography is studied in connection with the history of the Reformation. Copernicus (1473-1545), Galileo (1564-1642) and Newton (1653-1727) are the re-

formers of astronomical science, and are of importance not only to the history of astronomy, but also to the history of modern thought and culture as a whole. Like the church reformers, these champions of the new world-view had to suffer persecution, and that not from the Catholic side only (Melanchthon). Thus we find even undesirable points of relation between the central material and geography. But astronomical geography finds support at this point from yet another side, *viz.*, from the history of the voyages of discovery which has preceded. At that time the chief object was the discussion of the discovered countries; now follows astronomical geography, to the discussion of which we are urged by the voyages of Columbus.

The material separates into ten unities:—

1. Globe shape of the earth.
2. Size of the earth.
3. Motion about its axis.
4. Latitude and longitude.
5. The terrestrial globe.
6. Planispheres.
7. The earth's motion about the sun.
- 8-9. Eclipses of the sun and moon; distance and true size of sun and moon.
10. The calendar. (According to Rein, Pickel, and Scheller in the "Seventh School Year," p. 73, where hints are given for methodical treatment.)

Ziller and Just demand as a special unity in connection with the history of the Reformation: The places in which Luther was active. In connection with this it would be proper to ask the question: What was the appearance of a German city at the time of the Reformation?

Additional geographical unities (in the Thirty Years' War): The country in which the Thirty Years' War began: Bohemia and Moravia. The country from which the Prot-

estants first received help: Denmark. The country from which the savior of the Reformation came: Sweden and Norway. The Polar expeditions (as the complements of the voyages of discoveries in a geographical sense).

#### IV. NATURE STUDY.

- (a) With astronomical geography.
  - 1. Gravitation.
  - 2. Explanation of the orbit of the earth (Centripetal and Centrifugal force).
  - 3. How do we know that the earth is flattened at the poles? (The Pendulum.)
  - 4. Clocks (in connection with the measuring of degrees and time relations).
  - 5. The atmosphere and the barometer as the means of measuring altitude and humidity (Mercury).
  - 6. The aqueous phenomena of the air (the three physical forms. Electricity may be treated as a special unity).
  - 7. How are we informed as to the condition of the sun? (Analysis of light; the rainbow.)
  - 8. Light and heat (in connection with the question: How is it that it is always cold in the upper strata of air, notwithstanding the sunshine?). (The Thermometer.)
  - 9. Lenses.
- (b) With physical geography.
  - 10. The principal facts of geology (in connection with the hot springs of Bohemia and Iceland).
  - 11. The principal industry of the Bohemian Forest (Glass and its manufacture).
  - 12. Northern fauna and flora (in connection with Scandinavia and the Arctic Ocean).

- (c) With inventions.
  - 13. Gunpowder and its composition (expansion of gases ; oxygen and combustion.)
- (d) With history.
  - 14. Hydraulics.
  - 15. The fire-engine.

(See Geography : the appearance of a German city at the time of the Reformation.)

In order to meet possible objections, we remark here, that the several groups in the preceding arrangement are by no means always to be regarded as *unities*. On closer inspection many of them will resolve themselves into groups of unities. Then, too, it must not be overlooked that several unities may be mutually related. The attention must, therefore, be directed not only to the transverse section of the course of study, but also to the longitudinal section, *i.e.*, besides the proper co-ordination of the branches of study, the proper sequence of the topics within each branch is to be carefully provided for, lest the teaching of natural science should resolve itself into a number of incoherent observations. We have not aimed to give the details in this direction, but only to point out the wealth of material in natural science, and to give hints for a proper selection.

#### V. SINGING.

(The songs and choruses learned during this year are again brought into intimate relation to the other subjects of study by selecting them from authors treating this period ; a comparatively easy task for German schools, which have such a wealth of material to select from. It is the constant aim to go to the original sources, and to make even the character of the songs sung harmonize with and support the central material. — Tr.)



## VI. ARITHMETIC.

The topics considered during this (sixth) school year are multiplication and division of fractions, and their combination. The material is taken partly from the thought material, partly from social life. With reference to the former we add a few illustrations :—

## (a) In connection with Mathematical Geography.

It is to be computed what time it is in Cologne when the clock in the tower of St. Nicholas in Altenburg strikes seven.

Altenburg is situated 10 degrees east from Paris ( $24\frac{1}{2}$  degrees east of Ferro). Cologne lies  $4\frac{1}{2}$  degrees east of Paris ( $24\frac{1}{2}$  degrees east of Ferro). Therefore the difference of degrees is  $5\frac{1}{2}$ . (Review of Subtraction.) For every degree there is a difference of 4 minutes of time; consequently it is seven o'clock in Cologne  $5\frac{1}{2} \times 4 = 22$  minutes later than with us.

Conversely, the difference of degrees can be computed from the difference of time. In the larger railway stations west and east of Berlin the difference of time between that station and the Imperial capital is always given.

From the diameter of the earth its circumference can be computed by multiplication; from the circumference, the diameter by division. (The computation of the sphere in general should be borne in mind.)

## (b) In connection with Natural Science.

From the difference of barometric indications in measuring altitudes, the altitude of certain points may be determined; conversely, from the altitude, the barometric indication.

The average thermometer reading for a day or, as is customary in meteorology, for a week (or a month, as in the United States.—Tr.), is determined by addition and division.

## (c) In connection with History.

Computation of an army corps in the Thirty Years' War in the vicinity of Altenburg, Germany. (The details would not interest American readers. The problem involves the elements of Percentage also. The author admits that the proper selection of the arithmetical material is a most difficult problem. — Tr.)

## VII. DRAWING.

In a previous grade, in connection with geometry, the circle and those lines which are constructed by means of the circle have been drawn. These lines were also applied in various combinations. Now the circular line appears in connection with the straight line, and these are applied in the study of the industrial art that flourished at the time of the Reformation. A careful selection of material is of course needed here.

## ILLUSTRATIVE LESSON.

## TREATMENT OF THE NUMBER 3.

(By DR. KARL JUST, Altenburg.)

AIM — How many persons were in the home of the little girl of Sternthal (first fairy tale) when her father and mother were yet alive?

CLEARNESS (ANALYSIS and SYNTHESIS 1).— There was first her father (1), then her mother (1 + 1), and then the good little girl (2 + 1). Together there were therefore three (3).

But now her father died (3 - 1), and there were left mother and daughter; then her mother died too (2 - 1), and the little girl was left alone. At last the little girl went away (1 - 1), and there was nobody left in the house.

After the counting, adding and subtracting as far as 3 have practiced by means of members of the family, the abacus objects, there follows:—

**ASSOCIATION 1.**— Associating exercises are practiced by means of sticks, cubes or other objects.

Lay 1, 2, 3 sticks.

From 3 sticks take away 1, 2, 3 sticks, etc.

**SYNTHESIS 2.**— With these are connected exercises in Multiplication and Division (Partition). Clap your hands once, twice, three times.

$1 \times 1$ ,  $2 \times 1$ ,  $3 \times 1$ .

Raise your arm once, twice, three times.

Show me 3 fingers, 2 fingers, 1 finger.

$1 \times 3$ ,  $1 \times 2$ ,  $1 \times 1$ .

Lay 3 pennies in 3 heaps.

Lay 3 pennies in 2 heaps. (1 remains.)

Lay 3 pennies in 1 heap.

$3 \div 3$ ,  $3 \div 2$ ,  $3 \div 1$ ;  $\frac{1}{3}$  of 3,  $\frac{1}{2}$  of 3.

Lay 2 pennies in 2 heaps.

Lay 2 pennies in 1 heap.

$\frac{1}{2}$  of 2, 2 — 2.

**ASSOCIATION 2.**— Show me 3 sticks.

Show me 2 sticks.

Show me 1 stick.

Let 3 boys come forward and divide these 3 chestnuts.

**SYSTEM.**— These resulting series are now systematically arranged as follows:—

1 2 3, 3 2 1,  $1 \times 1$ ,  $1 \times 3$ ,  $3 \div 3$ ,  $2 \div 2$ ,  $1 + 1$ .

$1 + 1$ ,  $1 + 2$ ,  $2 \times 1$ ,  $1 \times 2$ ,  $3 \div 2$ ,  $2 \div 1$ .

$2 + 1$ ,  $3 \times 1$ ,  $1 \times 1$ ,  $3 \div 1$ .

$3 - 1$ ,  $1 - 1$ .

$2 - 2$ ,  $3 - 2$ .

$1 - 1$ .

**METHOD.**— In order that the completed series which have been presented so far only in sequence may also find independent application, especially also suited to the social relation of the children, the following methodic exercises will be useful:—

Name 3 boys.

Which of you has 3 brothers or sisters? Or 2? Or only 1 brother?  
1 sister?

If I have 3 pennies and give 1 penny to a poor man?

But if I give away 2 of them ? Or all 3 ?  
 Name for me what you have 2 times. (2 eyes, 2 ears, etc.)  
 And what only 1 time ?  
 What can you find in this room 2 times ? (2 blackboards, 2 doors.)  
 What 3 times ? (3 tables, 3 bookcases, etc.)  
 Only 1 time ? (1 stove, 1 desk, etc.)  
 When mamma has 2 pears and divides them among 3 children, how much does each get ?

Children will soon easily make similar illustrations, and thus stimulate self-activity immensely, a fact which is of the utmost importance in education.

Additional oral and written exercises may be as follows : —

How many must we put with 2 to make it 3 ?

How many must we take from 3 to make it 1 ?

Before 3 comes ?

After 1 comes ?

Show me the first button.

Show me the second button.

Show me the third button.

$$3 = 1 + 1 + 1.$$

$$3 = 2 + 1.$$

How often is 1 contained in 3 ?

How often is 1 contained in 2 ?

$$\frac{1}{2} \text{ of } 2 ?$$

$$\frac{1}{3} \text{ of } 3 ? \quad \frac{2}{3} \text{ of } 3 ?$$

$$1 + 1 + 1 - 2 ?$$

$$3 \times 1 - 2 ? \quad 3 \times 1 - 1 ?$$

$$3 \div 3 + 2 ?$$

During intermission or at the time for rest exercise the children may learn counting-out rhymes, which assist counting : e.g., —

One, two, three, the bumble-bee,  
 The rooster crows and out goes he.



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An Essay in Pedagogical Psychology. Translated from the German of DR. PAUL RADESTOCK by F. A. CASPARI, Teacher of German, Girls' High School, Baltimore; with an Introduction by DR. G. STANLEY HALL, President of Clark University, Worcester, Mass. Cloth. 124 pages. Retail price, 75 cents.

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